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1 BEFORE THE ARIZONA CORPORATION COMMISSION 2 **COMMISSIONERS** AZ CORP COMMUNICA **DOUG LITTLE - CHAIRMAN** DOOKET JULEE **BOB STUMP** 2316 MAR 18 7.7 2 23 4 **BOB BURNS** TOM FORESE 5 ANDY TOBIN 6 IN THE MATTER OF THE APPLICATION OF DOCKET NO. W-01445A-15-0277 ARIZONA WATER COMPANY, AN 8 ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY, AND NOTICE OF FILING FOR ADJUSTMENTS TO ITS RATES AND STAFF'S DIRECT TESTIMONIES 10 CHARGES FOR UTILITY SERVICE FURNISHED BY ITS WESTERN GROUP 11 AND FOR CERTAIN RELATED APPROVALS. 12 The Utilities Division ("Staff") of the Arizona Corporation Commission ("Commission") 13 hereby files the Direct Testimony of Briton A. Baxter for rate design and the Direct Testimony of 14 Frank M. Smaila for cost of service, in the above-referenced docket. 15 RESPECTFULLY SUBMITTED this 18th day of March . 2016. 16 17 18 Wesley C. Van Cleve 19 Brian E. Smith Attorneys, Legal Division 20 Arizona Corporation Commission 1200 West Washington Street 21 Phoenix, Arizona 85007 (602) 542-3402 22 23 24 Original and thirteen (13) copies of the foregoing filed this 18th day of March, Arizona Compration Commission 25 2016, with: DOCKETED 26 **Docket Control** MAR 18 2016 Arizona Corporation Commission 27 1200 West Washington Street Phoenix, Arizona 85007 28

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BEFORE THE ARIZONA CORPORATION COMMISSION

DOUGLITTLE	
Chairman BOB STUMP	
Commissioner	
BOB BURNS	
Commissioner	
TOM FORESE Commissioner	
ANDY TOBIN	
Commissioner	
IN THE MATTER OF THE APPLICATION OF)	DOCKET NO. W-01445A-15-0277
ARIZONA WATER COMPANY, AN ARIZONA)	
CORPORATION, FOR A DETERMINATION OF)	
THE FAIR VALUE OF ITS UTILITY PLANT)	
AND PROPERTY, AND FOR ADJUSTMENTS)	
TO ITS RATES AND CHARGES FOR UTILITY)	
SERVICE FURNISHED BY ITS WESTERN)	
GROUP AND FOR CERTAIN RELATED)	
<u>APPROVALS</u>)	
(RATE DESIGN)	
DIRECT	
DIRECT	

TESTIMONY

OF

BRITON A. BAXTER

PUBLIC UTILITIES ANALYST V

UTILITIES DIVISION

ARIZONA CORPORATION COMMISSION

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EXECUTIVE SUMMARY ARIZONA WATER COMPANY WESTERN GROUP DOCKET NO. W-01445A-15-0277

Arizona Water Company ("Company" or "AWC") is a certificated Arizona public service corporation that provides water service throughout the State of Arizona. The Company's water systems are grouped into the Northern, Eastern, and Western Groups. The Northern group is comprised of the Navajo and Verde Valley Water Systems; the Eastern group is comprised of the Superstition, Cochise, and Falcon Valley Water Systems; and the Western group is comprised of the Pinal Valley, White Tank and Ajo Water Systems. The Company's last rate increase was approved in Decision No. 74081, dated September 23, 2013, for the Northern group.

On August 21, 2015, the Company filed an application¹ for a rate increase for its Western group: Pinal Valley Water Service Area (comprised of the Casa Grande, Coolidge, and Stanfield subsystems); White Tank Water Service Area; and Ajo Water Service Area. The rates for the Western group were established in Decision No. 73144, dated May 1, 2012.

This testimony of Briton A. Baxter presents Staff's recommendations in the area of rate design.

Rate application:

Pinal Valley Water System

The Company's proposed rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 5,700 gallons from \$25.24 to \$33.15, for an increase of \$7.91 or 31.33 percent.

Staff's recommended rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 5,700 gallons from \$25.24 to \$30.04, for an increase of \$4.80 or 19.01 percent.

White Tank Water System

The Company's proposed rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 7,681 gallons from \$40.04 to \$52.24, for an increase of \$12.19 or 30.45 percent.

Staff's recommended rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 7,681 gallons from \$40.04 to \$46.71, for an increase of \$6.67 or 16.65 percent.

¹ On July 31, 2015 AWC filed a "Notice of Intent to File General Rate Case and Request for Accounting Order". On August 21, 2015 AWC filed its application and 12 amendments to its application.

Ajo Water System

The Company's proposed rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 2,680 gallons from \$34.01 to \$41.10, for an increase of \$7.09 or 20.84 percent.

Staff's recommended rates would increase the typical residential $5/8 \times 3/4$ -inch meter bill with a median usage of 2,680 gallons from \$34.01 to \$39.11, for an increase of \$5.10 or 15.00 percent.

Staff recommends approval of its recommended rates and charges for the Western Group service areas of Arizona Water Company as shown on the attached schedules.

Rate Design Direct Testimony of Briton Baxter Docket No. W-01445A-15-0277 Page 1

INTRODUCTION

- Q. Please state your name, occupation, and business address.
- A. My name is Briton A. Baxter. I am a Public Utilities Analyst V employed by the Arizona Corporation Commission ("ACC" or "Commission") in the Utilities Division ("Staff"). My business address is 1200 West Washington Street, Phoenix, Arizona 85007.
- Q. Are you the same Briton Baxter who previously filed testimony pertaining to rate base, operating revenues and expenses and revenue requirement on behalf of Staff in this docket for Arizona Water Company's ("AWC" or "Company") permanent rate application?
- A. Yes, I am.
- Q. What is the basis of your recommendations?
- A. Based on the adjustments and revenue requirement recommended by Staff, I am presenting Staff's recommended rate design.

BACKGROUND

- Q. Please provide a brief description of Arizona Water Company and the service it provides.
- A. AWC is a certified Arizona public service company that provides water service throughout the state of Arizona. The Company's water service areas are grouped into the Northern, Eastern and Western Groups. The Northern Group is comprised of the Navajo and Verde Valley Water Service Areas; the Eastern Group is comprised of the Superstition, Cochise, and Falcon Valley Water Service Areas; and the Western Group is comprised of the Ajo, Pinal Valley, and White Tank Water Service Areas. The Company's last rate increase was approved in Decision No. 74081, dated September 23, 2013, for the Northern group.

On August 21, 2015, the Company filed an application² for a rate increase for its Western group: Pinal Valley Water Service Area (comprised of the Casa Grande, Coolidge, and Stanfield sub-service areas); White Tank Water Service Area; and Ajo Water Service Area. The rates for the Western group were established in Decision No. 73144, dated May 1, 2012.

RATE DESIGN

Q. Has Staff prepared schedules summarizing the present, Company proposed, and Staff recommended rates and service charges for each service area?

A. Yes. Schedule BAB-1 for each service area provides a summary of the Company's present, Company's proposed, and Staff's recommended rates.

Q. Please briefly describe the Company's proposed changes to rates.

Across all three service areas, the Company proposes different monthly usage charges by customer class. Further, the Company proposes adding a tier to the existing inverted commodity rate structure for all customer classes. This will result in three-tiers for all meter sizes of the commercial, construction, and the residential 1-inch meter and larger customer classes. The typical 5/8 x 3/4-inch residential customer meter will now have a fourth-tier, with the first-tier being what the Company considers a lifeline tier. The Company also proposes a flat commodity rate for all industrial meter sizes, with a lower rate for 6-inch and larger meters. To account for the new tiers, the Company has proposed modifying and/or removing the existing break-over points. Further, the Company proposes adding a 3/4-inch meter size to all customer classes, and is proposing to add meter sizes to the construction customer class to be consistent with the existing meter sizes in the other customer classes.

² On July 31, 2015 AWC filed a "Notice of Intent to File General Rate Case and Request for Accounting Order". On August 21, 2015 AWC filed its application and 12 amendments to its application.

Pinal Valley Service Area ("Pinal Valley")

- Q. Please summarize the monthly minimum portion of the Company's present rate design for Pinal Valley.
- A. The present monthly minimum charges by meter size for all customer classes are as follows: 5/8 x 3/4-inch, \$16.00; 1-inch, \$40.00; 1 1/2-inch, \$80.00; 2-inch, \$128.00; 3-inch, \$256.00; 4-inch, \$400.00; 6-inch, \$800.00; 8-inch, \$1,280.00; and 10-inch \$1,840.00. The current private fire service is \$25.00 for all connection sizes. No gallons are included in the monthly minimum charge.

- Q. Please briefly describe the Staff recommended rates.
- A. Staff's recommended rates are designed to produce revenues that cover the overall cost of providing service as established in prior testimony filed in this Docket. These rates employed inverted block structures, where the price per unit for the commodity component of the bill increases as usage increases. This is designed specifically to send a pricing signal that encourages the efficient use of scarce water resources. Staff also considered the Company's cost-of-service in setting recommended rates. Staff agrees with, and has incorporated the Company's proposed number of tiers, break-over points and additions of 3/4-inch and various construction meter sizes in its recommended rate design.
- Q. Besides setting rates to earn the revenue requirement as determined by previous testimony did Staff consider any other factors in setting rates?
- A. Yes. Staff's recommended rates include Staff's "normalization" of the billing determinants. This normalization is intended to adjust rates to reflect the reduction in sales due to the declining average usage-per-customer in the residential classes' across all three service areas. To accomplish this, Staff adjusted the target revenue for the residential class in each service area.

- Q. Please summarize the commodity portion of the Company's present rate design for Pinal Valley.
- A. The commodity rate for the 5/8 x 3/4-inch residential customers is \$1.1879 per thousand gallons for zero to 3,000 gallons, \$2.1026 per thousand gallons for 3,001 to 10,000 gallons, and \$3.2590 per thousand gallons for any consumption over 10,000 gallons. The 1-inch and larger residential, commercial, and construction classes' commodity break-over points vary by meter size with a \$2.1026 per thousand gallons first-tier commodity rate and a \$3.2590 per thousand gallons commodity rate for any consumption over the first-tier. The industrial meters (up to 4-inches) have commodity break-over points that vary by meter size with a \$1.5500 per thousand gallons first-tier commodity rate and a \$2.4800 per thousand gallons commodity rate for any consumption over the first-tier. The present commodity rate for sales for resale water and industrial meters 6-inches and larger is a flat \$1.5500 per thousand gallons.
- Q. Please summarize the monthly minimum charges portion of the Company's proposed rate design for Pinal Valley.
- A. The Company is proposing different monthly minimum charges by customer class and meter size. The Company's proposed monthly minimum charges for residential customers are as follows: 5/8 x 3/4-inch, \$22.00; 3/4-inch, \$33.00; 1-inch, \$55.00; 1 1/2-inch, \$110.00; 2-inch, \$176.00; 3-inch, \$352.00; 4-inch, \$550.00; 6-inch, \$1,100.00; 8-inch, \$1,760.00; and 10-inch \$2,530.00. The Company's proposed monthly minimum charges for commercial, construction and sales for resale customers are as follows: 5/8 x 3/4-inch, \$25.00; 3/4-inch, \$37.50; 1-inch, \$62.50; 1 1/2-inch, \$125.00; 2-inch, \$200.00; 3-inch, \$400.00; 4-inch, \$625.00; 6-inch, \$1,250.00; 8-inch, \$2,000.00; and 10-inch \$2,875.00. The Company's proposed monthly minimum charges for industrial customers are as follows: 5/8 x 3/4-inch, \$35.00; 3/4-inch, \$52.50; 1-inch, \$87.50; 1 1/2-inch, \$175.00; 2-inch, \$280.00; 3-inch, \$560.00; 4-inch,

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\$875.00; 6-inch, \$1,750.00; 8-inch, \$2,800.00; and 10-inch \$4,025.00. The Company's proposed private fire service is \$35.00 for all connection sizes. No gallons are included in the monthly minimum charge.

Q. Please summarize the commodity portion of the Company's proposed rate design for Pinal Valley.

A. The Company proposes a four-tier inverted-block commodity rate for 5/8 x 3/4-inch residential customers with a \$1.5246 per thousand gallons lifeline first-tier (zero to 2,000 gallons) commodity rate, a \$2.1891 per thousand gallons second-tier (2,001 to 7,000 gallons) commodity rate, a \$2.8536 per thousand gallons third-tier (7,001 to 18,000 gallons) commodity rate, and a \$4.1827 per thousand gallons fourth-tier for any consumption over 18,000 gallons. The Company also proposes a four-tier inverted-block commodity rate for 3/4-inch residential customers with the same commodity rates per thousand gallons for each tier but with break-over points at 4,000, 10,000, and 18,000 gallons respectively. The 1-inch and larger residential, commercial and construction classes' commodity break-over points vary by meter size using a three-tier inverted-block commodity rate with a \$2.1891 per thousand gallons first-tier commodity rate, a \$2.8536 per thousand gallons second-tier commodity rate, and a \$4.1827 per thousand gallons for any consumption over the secondtier. The Company proposes a flat commodity rate for 4-inch and smaller industrial meters of \$2.5000 and for 6-inch and larger meters of \$1.7500 per thousand gallons. The Company proposed a flat rate of \$2.1891 for all sales for resale meter sizes.

Q. Please summarize the monthly minimum portion of Staff's recommended rate design for Pinal Valley.

A. Staff is recommending different monthly minimum charges by customer class and by meter size. Staff's recommended monthly minimum charges for residential customers are as

follows: 5/8 x 3/4-inch, \$20.00; 3/4-inch, \$30.00; 1-inch, \$50.00; 1 1/2-inch, \$100.00; 2-inch, \$160.00; 3-inch, \$320.00; 4-inch, \$500.00; 6-inch, \$1,000.00; 8-inch, \$1,600.00; and 10-inch \$2,300.00. Staff's recommended monthly minimum charges for commercial, construction and sales for resale customers are as follows: 5/8 x 3/4-inch, \$21.55; 3/4-inch, \$32.33; 1-inch, \$53.88; 1 1/2-inch, \$107.75; 2-inch, \$172.40; 3-inch, \$344.80; 4-inch, \$538.75; 6-inch, \$1,077.50; 8-inch, \$1,724.00; and 10-inch \$2,478.25. Staff's recommended monthly minimum charges for industrial customers are as follows: 5/8 x 3/4-inch, \$31.82; 3/4-inch, \$47.73; 1-inch, \$79.55; 1 1/2-inch, \$159.09; 2-inch, \$254.55; 3-inch, \$509.09; 4-inch, \$795.45; 6-inch, \$1,590.91; 8-inch, \$2,545.45; and 10-inch \$3,659.09. Staff's recommended private fire service is \$31.82 for all connection sizes. No gallons are included in the monthly minimum charge.

- Q. Please summarize the commodity portion of Staff's recommended rate design for Pinal Valley.
- A. Staff recommends a four-tier inverted-block commodity rate for 5/8 x 3/4-inch and 3/4-inch residential customers using the Company's proposed break-over points but with a \$1.4350 per thousand gallons first-tier, a \$1.9390 per thousand gallons second-tier, a \$2.7223 per thousand gallons third-tier, and a \$3.9613 per thousand gallons fourth-tier commodity rate. The 1-inch and larger residential, commercial, and construction classes' commodity break-over points vary by meter size with a \$1.9390 per thousand gallons first-tier, a \$2.7223 per thousand gallons second-tier, and a \$3.9613 per thousand gallons commodity rate for any consumption over the second-tier. Staff recommends a flat commodity rate for industrial meters 4-inches and smaller of \$2.4500 and a flat commodity rate for industrial meters 6-inches and larger of \$1.7150. Staff also recommends a flat rate for all meter sizes of the sales for resale customer class of \$1.9175 per thousand gallons.

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residential bill with median usage of 5,700 gallons from \$25.24 to \$30.04, for an increase of \$4.80 or 19.01 percent.

Q. What is the Company's rate structure under present, Company's proposed and Staff's recommended rates for Pinal Valley?

What is the rate impact on a typical 5/8 x 3/4-inch meter Pinal Valley residential

The Company's proposed rates would increase the typical 5/8 x 3/4-inch meter residential

bill with median usage of 5,700 gallons from \$25.24 to \$33.15 for an increase of \$7.91 or

31.33 percent. Staff's recommended rates would increase the typical 5/8 x 3/4-inch meter

Under present rates, approximately 40.36 percent of revenue is coming from the monthly minimum and 59.64 percent is from the commodity charges. Under the Company's proposed rates, approximately 44.50 percent of revenue is coming from monthly minimum and 55.50 percent of revenue is from commodity charges. Under Staff's recommended rates, approximately 43.40 percent is coming from monthly minimum and 56.60 percent is from commodity charges.

White Tank Service Area ("White Tank")

- Q. Please summarize the monthly minimum portion of the Company's present rate design for White Tank.
- A. The present monthly minimum charges by meter size for all customer classes are as follows: 5/8 x 3/4-inch, \$23.00; 1-inch, \$57.50; 1 1/2-inch, \$115.00; 2-inch, \$184.00; 3-inch, \$368.00; 4-inch, \$575.00; 6-inch, \$1,150.00; 8-inch, \$1,840.00; and 10-inch \$2,645.00. The current private fire service is \$25.00 for all connection sizes. No gallons are included in the monthly minimum charge.

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- Q. Please summarize the commodity portion of the Company's present rate design for White Tank.
- A. The commodity rate for the 5/8 x 3/4-inch residential customers is \$1.8000 per thousand gallons for zero to 5,000 gallons, \$3.0000 per thousand gallons for 5,001 to 15,000 gallons, and \$5.1664 per thousand gallons for any consumption over 15,000 gallons. The 1-inch and larger residential, commercial, industrial (up to 4-inch meter size) and construction classes' commodity break-over points vary by meter size with a \$3.0000 per thousand gallons first-tier commodity rate and a \$5.1664 per thousand gallons commodity rate for any consumption over the first-tier. The present commodity rate for industrial meters 6-inch and larger and all sales for resale water is a flat rate of \$3.0000 per thousand gallons.
- Q. Please summarize the monthly minimum portion of the Company's proposed rate design for White Tank.
 - The Company is proposing different monthly minimum charges by customer class and meter size. The Company's proposed monthly minimum charges for residential customers are as follows: 5/8 x 3/4-inch, \$30.00; 3/4-inch, \$45.00; 1-inch, \$75.00; 1 1/2-inch, \$150.00; 2-inch, \$240.00; 3-inch, \$480.00; 4-inch, \$750.00; 6-inch, \$1,500.00; 8-inch, \$2,400.00; and 10-inch \$3,450.00. The Company's proposed monthly minimum charges for commercial and industrial customers are as follows: 5/8 x 3/4-inch, \$35.00; 3/4-inch, \$52.50; 1-inch, \$87.50; 1 1/2-inch, \$175.00; 2-inch, \$280.00; 3-inch, \$560.00; 4-inch, \$875.00; 6-inch, \$1,750.00; 8-inch, \$2,800.00; and 10-inch \$4,025.00. The Company's proposed monthly minimum charges for construction and sales for resale customers are as follows: 5/8 x 3/4-inch, \$25.00; 3/4-inch, \$37.50; 1-inch, \$62.50; 1 1/2-inch, \$125.00; 2-inch, \$200.00; 3-inch, \$400.00; 4-inch, \$625.00; 6-inch, \$1,250.00; 8-inch, \$2,000.00; and 10-inch \$2,875.00. The Company's proposed private fire service is \$35.00 for all connection sizes. No gallons are included in the monthly minimum charge.

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Q. Please summarize the commodity portion of the Company's proposed rate design for White Tank.

The Company proposes a four-tier inverted-block commodity rate for 5/8 x 3/4-inch Α. residential customers with a \$2.2531 per thousand gallons lifeline first-tier (zero to 3,000 gallons) commodity rate, a \$3.3065 per thousand gallons second-tier (3,001 to 10,000 gallons) commodity rate, a \$4.3599 per thousand gallons third-tier (10,001 to 30,000 gallons) commodity rate, and a \$6.4668 per thousand gallons fourth-tier for any consumption over 30,000 gallons. The Company also proposes a four-tier inverted-block commodity rate for 3/4-inch residential customers with the same commodity rates per thousand gallons for each tier but with break-over points at 5,000, 15,000, and 30,000 gallons respectively. The 1-inch and larger residential, commercial and construction classes' commodity break-over points vary by meter size with a \$3.3065 per thousand gallons first-tier commodity rate, a \$4.3599 per thousand gallons second-tier rate and a \$6.4668 per thousand gallons for any consumption over the second-tier. The Company proposes a flat commodity rate for 4-inch and smaller industrial meters of \$4.3599 and for 6-inch and larger meters of \$3.5000 per thousand gallons. The Company proposed a flat rate of \$3.3065 for all sales for resale meter sizes.

Q. Please summarize the monthly minimum portion of Staff's recommended rate design for White Tank.

A. Staff is recommending different monthly minimum charges by customer class and by meter size. Staff's recommended monthly minimum charges for residential customers are as follows: 5/8 x 3/4-inch, \$28.00; 3/4-inch, \$42.00; 1-inch, \$70.00; 1 1/2-inch, \$140.00; 2-inch, \$224.00; 3-inch, \$448.00; 4-inch, \$700.00; 6-inch, \$1,400.00; 8-inch, \$2,240.00; and 10-inch \$3,220.00. Staff's recommended monthly minimum charges for commercial and industrial customers are as follows: 5/8 x 3/4-inch, \$31.36; 3/4-inch, \$47.04; 1-inch, \$78.40;

1 1/2-inch, \$156.80; 2-inch, \$250.88; 3-inch, \$501.76; 4-inch, \$784.00; 6-inch, \$1,568.00; 8-

Q. Please summarize the commodity portion of Staff's recommended rate design for White Tank.

A. Staff recommends a four-tier inverted-block commodity rate for 5/8 x 3/4-inch and 3/4-inch residential customers using the Company's proposed break-over points but with a \$1.9150 per thousand gallons first-tier, a \$2.7700 per thousand gallons second-tier, a \$4.4090 per thousand gallons third-tier, and a \$6.2400 per thousand gallons fourth-tier commodity rate. The 1-inch and larger residential, commercial, and construction classes' commodity break-over points vary by meter size with a \$2.7700 per thousand gallons first-tier, a \$4.4090 per thousand gallons second-tier, and a \$6.2400 per thousand gallons commodity rate for any consumption over the second-tier. Staff recommends a flat commodity rate for industrial meters 4-inches and smaller of \$4.4090 and a flat commodity rate for industrial meters 6-inches and larger of \$3.5394. Staff also recommends a flat rate for all meter sizes of the sales for resale customer class of \$2.7700 per thousand gallons.

Q. What is the rate impact on a typical $5/8 \times 3/4$ -inch meter White Tank residential customer?

A. The Company's proposed rates would increase the typical $5/8 \times 3/4$ -inch meter residential bill with median usage of 7,681 gallons from \$40.04 to \$52.24 for an increase of \$12.19 or

30.45 percent. Staff's recommended rates would increase the typical $5/8 \times 3/4$ -inch meter residential bill with median usage of 7,681 gallons from \$40.04 to \$46.71, for an increase of \$6.67 or 16.65 percent.

Q. What is the Company's rate structure under present, Company's proposed and Staff's recommended rates for White Tank?

 A. Under present rates, approximately 40.81 percent of revenue is coming from the monthly minimum and 59.19 percent is from the commodity charges. Under the Company's proposed rates, approximately 43.26 percent of revenue is coming from monthly minimum and 56.74 percent of revenue is from commodity charges. Under Staff's recommended rates, approximately 43.10 percent is coming from monthly minimum and 56.90 percent is from commodity charges.

Ajo Service Area ("Ajo")

Q. Please summarize the Company's present rate design for Ajo.A. The present monthly minimum charges by meter size for all customer classes are as follows:

 5/8 x 3/4-inch, \$25.00; 1-inch, \$62.50; 1 1/2-inch, \$125.00; 2-inch, \$200.00; 3-inch, \$400.00; 4-inch, \$625.00; 6-inch, \$1,250.00; 8-inch, \$2,000.00; and 10-inch \$2,875.00. The current private fire service is \$25.00 for all connection sizes. No gallons are included in the monthly

minimum charge.

Q. Please summarize the commodity portion of the Company's present rate design for Ajo.

A. The commodity rate for the 5/8 x 3/4-inch residential customers is \$3.3617 per thousand gallons for zero to 3,000 gallons, \$5.9502 per thousand gallons for 3,001 to 10,000 gallons, and \$9.2228 per thousand gallons for any consumption over 10,000 gallons. The 1-inch and

larger residential, commercial, industrial (up to 4-inch meters) and construction classes' commodity break-over points vary by meter size with a \$5.9502 per thousand gallons first-tier commodity rate and a \$9.2228 per thousand gallons commodity rate for any consumption over the first-tier. The present commodity rate for sales for resale water and industrial meters 6-inches and larger is a flat rate of \$5.9502 per thousand gallons.

Q. Please summarize the monthly minimum portion of the Company's proposed rate design for Ajo.

A. The Company is proposing different monthly minimum charges by customer class and meter size. The Company's proposed residential monthly minimum charges by meter size are as follows: 5/8 x 3/4-inch, \$28.00; 3/4-inch, \$42.00; 1-inch, \$70.00; 1 1/2-inch, \$140.00; 2-inch, \$224.00; 3-inch, \$448.00; 4-inch, \$700.00; 6-inch, \$1,400.00; 8-inch, \$2,240.00; and 10-inch \$3,220.00. The Company's proposed monthly minimum charges for commercial, construction, and sales for resale customers are as follows: 5/8 x 3/4-inch, \$33.00; 3/4-inch, \$49.50; 1-inch, \$82.50; 1 1/2-inch, \$165.00; 2-inch, \$264.00; 3-inch, \$528.00; 4-inch, \$825.00; 6-inch, \$1,650.00; 8-inch, \$2,640.00; and 10-inch \$3,795.00. The Company's proposed monthly minimum charges for industrial customers are as follows: 5/8 x 3/4-inch, \$35.00; 3/4-inch, \$52.50; 1-inch, \$87.50; 1 1/2-inch, \$175.00; 2-inch, \$280.00; 3-inch, \$560.00; 4-inch, \$875.00; 6-inch, \$1,750.00; 8-inch, \$2,800.00; and 10-inch \$4,025.00. The Company's proposed private fire service is \$35.00 for all connection sizes. No gallons are included in the monthly minimum charge.

Q. Please summarize the commodity portion of the Company's proposed rate design for Ajo.

A. The Company proposes a four-tier inverted-block commodity rate for 5/8 x 3/4-inch residential customers with a \$4.4007 per thousand gallons lifeline first-tier (zero to 2,000

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gallons) commodity rate, a \$6.3189 per thousand gallons second-tier (2,001 to 5,000 gallons) commodity rate, a \$8.2370 per thousand gallons third-tier (5,001 to 10,000 gallons) commodity rate, and a \$12.0733 per thousand gallons fourth-tier for any consumption over 10,000 gallons. The Company also proposes a four-tier inverted-block commodity rate for 3/4-inch residential customers with the same commodity rates per thousand gallons for each tier but with break-over points at 3,000, 7,000, and 11,000 gallons respectively. The 1-inch and larger residential, commercial, and construction classes' commodity break-over points vary by meter size with a \$6.3189 per thousand gallons first-tier commodity rate, a \$8.2370 per thousand gallons second-tier rate and a \$12.0733 per thousand gallons for any consumption over the second-tier. The Company proposes a flat commodity rate for 4-inch and smaller industrial meters of \$8.2370 and for 6-inch and larger meters of \$2.2500 per thousand gallons. The Company also proposed a flat rate of \$6.3189 for all sales for resale meter sizes.

Q. Please summarize the monthly minimum portion of Staff's recommended rate design for Ajo.

Staff is recommending different monthly minimum charges by customer class and by meter size. Staff's recommended monthly minimum charges for residential customers are as follows: 5/8 x 3/4-inch, \$26.93; 3/4-inch, \$40.40; 1-inch, \$67.33; 1 1/2-inch, \$134.65; 2-inch, \$215.44; 3-inch, \$430.88; 4-inch, \$673.25; 6-inch, \$1,346.50; 8-inch, \$2,154.40; and 10-inch \$3,096.95. Staff's recommended monthly minimum charges for commercial, construction and sales for resale customers are as follows: 5/8 x 3/4-inch, \$31.74; 3/4-inch, \$47.61; 1-inch, \$79.35; 1 1/2-inch, \$158.69; 2-inch, \$253.91; 3-inch, \$507.82; 4-inch, \$793.47; 6-inch, \$1,586.95; 8-inch, \$2,539.11; and 10-inch \$3,649.98. Staff's recommended monthly minimum charges for industrial customers are as follows: 5/8 x 3/4-inch, \$33.66; 3/4-inch, \$50.49; 1-inch, \$84.16; 1 1/2-inch, \$168.31; 2-inch, \$269.30; 3-inch, \$538.60; 4-inch, \$841.56;

6-inch, \$1,683.13; 8-inch, \$2,693.00; and 10-inch \$3,871.19. Staff's recommended private fire service is \$33.99 for all connection sizes. No gallons are included in the monthly minimum charge.

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Q. Please summarize the commodity portion of Staff's recommended rate design for Ajo.

Staff recommends a four-tier inverted-block commodity rate for 5/8 x 3/4-inch and 3/4-inch residential customers using the Company's proposed break-over points but with a \$4.1650 per thousand gallons first-tier, a \$5.6650 per thousand gallons second-tier, a \$7.3100 per thousand gallons third-tier, and a \$10.5930 per thousand gallons fourth-tier commodity rate. The 1-inch and larger residential, commercial, and construction classes' commodity break-over points vary by meter size with a \$5.6650 per thousand gallons first-tier, a \$7.3100 per thousand gallons second-tier, and a \$10.5930 per thousand gallons commodity rate for any consumption over the second-tier. Staff recommends a flat commodity rate for industrial meters 4-inches and smaller of \$7.3100 and a flat commodity rate for industrial meters 6-inches and larger of \$1.9968. Staff also recommends a flat rate for all meter sizes of the sales for resale customer class of \$5.6650 per thousand gallons.

Q. What is the rate impact on a typical $5/8 \times 3/4$ -inch meter Ajo residential customer?

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The Company's proposed rates would increase the typical 5/8 x 3/4-inch meter residential bill with median usage of 2,680 gallons from \$34.01 to \$41.10 for an increase of \$7.09 or 20.84 percent. Staff's recommended rates would increase the typical 5/8 x 3/4-inch meter residential bill with a median usage of 2,680 gallons from \$34.01 to \$39.11, for an increase of \$5.10 or 15.00 percent.

Q. What is the Company's rate structure under present, Company's proposed and Staff's recommended rates for Ajo?

A. Under present rates, approximately 48.90 percent of revenue is coming from the monthly minimum and 51.10 percent is from the commodity charges. Under the Company's proposed rates, approximately 46.44 percent of revenue is coming from monthly minimum and 53.56 percent of revenue is from commodity charges. Under Staff's recommended rates, approximately 48.21 percent is coming from monthly minimum and 51.79 percent is from commodity charges.

ARSENIC COST RECOVERY MECHANISM

- Q. Is the Company currently collecting a surcharge for an Arsenic Cost Recovery Mechanism ("ACRM")?
- A. Yes. Decision No. 75412, dated January 19, 2016, authorized the Company to start collecting step 1 of the ACRM for the arsenic treatment plant that was added in the Company's Valley Farm system, part of the Pinal Valley service area. The step 1 surcharge that was approved increased the typical 5/8 x 3/4-inch meter residential monthly minimum by \$0.15 and added \$0.0160 to the commodity rate for each tier. The Decision was effective immediately.
- Q. What treatment does Staff recommend for the ACRM surcharge approved in Decision No. 75412?
- A. Staff recommends that the ACRM surcharge approved in Decision No. 75412, cease when the rates in this proceeding become effective, because the arsenic treatment plant has been included in rate base as a post-test year addition in this Docket.

³ Decision No. 75449, dated February 11, 2016, corrects nunc pro tunc, an error in an attached schedule in Decision No. 75412.

Rate Design Direct Testimony of Briton Baxter Docket No. W-01445A-15-0277 Page 16

1	ОТН	IER CHARGES
2	Servi	ce Line and Meter Installation Charges
3	Q.	Did the Company propose any changes to the service line and meter installation
4		charges for the Western Group Systems?
5	A.	Yes.
6		
7	Q.	Does Staff agree with the Company's proposed changes to the service line and meter
8		installation charges?
9	A.	Yes, and Staff recommends approval. Both the Company-proposed and the Staff-
10		recommended changes are shown on Schedule BAB-1 for each service area and are discussed
11		in greater detail in prior testimony filed in this Docket by Staff witness, Mr. Frank Smaila.
12		
13	Misce	ellaneous Service Charges
14	Q.	Did the Company propose any changes to the miscellaneous service charges for the
15		Western Group Service Areas?
16	A.	No.
17		
18	Q.	Does Staff agree that no changes to the service charges is appropriate?
19	A.	Yes. Staff agrees with the Company that no changes are necessary at this time.
20		
21	Q.	Does this conclude Staff's rate design direct testimony?
22	A.	Yes, it does.

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	KATE DES	7011					
	Present		Company		_	Staff	
Monthly Usage Charge	Rates		Proposed Rates		Rec	commended Ra	es
			Commercial,			Commercial,	
			Construction			Construction	
	All		& Sales for			& Sales for	
	Meters	Residential	Resale		Residential	Resale	Industrial
5/8 x 3/4" Meter	\$16.00	\$22.00	\$25.00	\$35.00	\$20.00	\$21.55	\$31.82
3/4" Meter	n/a	33.00	37.50	52.50	30.00	32.33	47.73
1" Meter	40.00	55.00	62.50	87.50	50.00	53.88	79.55
1½" Meter	80.00	110.00	125.00	175.00	100.00	107.75	159.09
2" Meter	128.00	176.00	200.00	280.00	160.00	172.40	254.55
3" Meter	256.00	352.00	400.00	560.00	320.00	344.80	5 09.09
4" Meter	400.00	550.00	625.00	875.00	500.00	538.75	795.45
6" Meter	800.00	1,100.00	1,250.00	1,750.00	1,000.00	1,077.50	1,590.91
8" Meter	1,280.00	1,760.00	2,000.00	2,800.00	1,600.00	1,724.00	2,545.45
10" Meter	1,840.00	2,530.00	2,875.00	4,025.00	2,300.00	2,478.25	3,659.09
Private Fire Service (all connection sizes)	25.00			35.00			31.82
Commodity Rates							
1							
5/8 x 3/4" Meter - Residential	_						
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons							
From 1 to 3,000 Gallons	\$1.1879						
From 3,001 to 10,000 Gallons	2.1026						
Over 10,000 Gallons	3.2590						
From 1 to 2,000 Gallons		\$1.5246			\$1.4350		
From 2,001 to 7,000 Gallons		2.1891			1.9390		
From 7,001 to 18,000 Gallons		2.8536			2.7223		
Over 18,000 Gallons		4.1827			3.9613		
5/8 x 3/4" Meter - Commercial							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons							
From 1 to 10,000 Gallons	\$2.1026						
Over 10,000 Gallons	3.2590						
From 1 to 3,000 Gallons			\$2.1891			\$1.9390	
From 3,001 to 15,000 Gallons			2.8536			2.7223	
Over 15,000 Gallons			4.1827			3.9613	
5/0 2/4835							
5/8 x 3/4" Meter - Construction	0		0			0	
Gallons Included in Minimum	U		0			0	
Excess of Minimum - per 1,000 Gallons	1.		60 1001			£1 0200	
From 1 to 3,000 Gallons	n/a		\$2.1891			\$1.9390	
From 3,001 to 15,000 Gallons	n/a		2.8536			2.7223	
Over 15,000 Gallons	n/a		4.1827			3.9613	
5/8 x 3/4" Meter - Industrial							
Gallons Included in Minimum	0			0			0
Excess of Minimum - per 1,000 Gallons							
From 1 to 10,000 Gallons	\$1.5500						
Over 10,000 Gallons	2.4800						
All Gallons				\$2.5000			\$2.4500
3/4" - Residential							
Gallons Included in Minimum	n/a	0			0		
Excess of Minimum - per 1,000 Gallons	11/2						
From 1 to 4,000 Gallons	n/a	\$1.5246			\$1.4350		
From 4,001 to 10,000 Gallons From 4,001 to 10,000 Gallons	n/a n/a	2.1891			1.9390		
From 10,001 to 18,000 Gallons	n/a	2.8536			2.7223		
Over 18,000 Gallons	n/a	4.1827			3.9613		
	-1/ 11						
3/4" - Commercial & Construction						^	
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons							
From 1 to 5,000 Gallons	n/a		\$2.1891			\$1.9390	
From 5,001 to 20,000 Gallons	n/a		2.8536			2.7223	
Over 20,000 Gallons	n/a		4.1827			3.9613	
3/4" - Industrial							
Gallons Included in Minimum	0			0			0
Excess of Minimum - per 1,000 Gallons							
All Gallons	n/a			\$2.5000			\$2.4500
	-7						

DATE	DECLOS	CONTIT

1" - Residential	Staff Recommended Rates 0
1" - Residential 0 Gallons Included in Minimum 0 Excess of Minimum - per 1,000 Gallons \$2,1026 From 1 to 25,000 Gallons \$2,1026 Over 25,000 Gallons 3,2590 From 1 to 5,000 Gallons \$2,1891 \$1.93	
Gallons Included in Minimum 0 0 Excess of Minimum - per 1,000 Gallons \$2.1026 From 1 to 25,000 Gallons \$2.1026 Over 25,000 Gallons 3.2590 From 1 to 5,000 Gallons \$2.1891	0
Excess of Minimum - per 1,000 Gallons From 1 to 25,000 Gallons Over 25,000 Gallons From 1 to 5,000 Gallons 3.2590 From 1 to 5,000 Gallons \$2.1891 \$1.93	v
From 1 to 25,000 Gallons \$2.1026 Over 25,000 Gallons 3.2590 From 1 to 5,000 Gallons \$2.1891 \$1.93	
From 1 to 5,000 Gallons \$2.1891 \$1.93	
From 1 to 5,000 Gallons \$2.1891 \$1.93	
	90
From 5,001 to 18,000 Gallons 2.8536 2.72	
Over 18,000 Gallons 4.1827 3.96	13
1" - Commercial	
Gallons Included in Minimum 0 0	0
Excess of Minimum - per 1,000 Gallons	•
From 1 to 25,000 Gallons \$2,1026	
Over 25,000 Gallons 3.2590	
From 1 to 8,000 Gallons \$2.1899	\$1.9390
From 8,001 to 38,000 Gallons 2.8536	2.7223
Over 38,000 Gallons 4.1827	3.9613
1" - Industrial	
Gallons Included in Minimum 0	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 25,000 Gallons \$1.5500	
Over 25,000 Gallons 2.4800	
All Gallons \$2.5000	\$2.4500
1" - Construction	
Gallons Included in Minimum n/a 0	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 8,000 Gallons n/a \$2.1899	\$1.9390
From 8,001 to 38,000 Gallons n/a 2.8536	2.7223
Over 38,000 Gallons n/a 4.1827	3.9613
1½" - Residential	
	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 55,000 Gallons \$2.1026	
Over 55,000 Gallons 3.2590	
From 1 to 10,000 Gallons \$2.1891 \$1.935	
From 10,001 to 35,000 Gallons 2.8536 2.722	
Over 35,000 Gallons 4.1827 3.961	.3
1½" - Commercial	
Gallons Included in Minimum 0 0	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 55,000 Gallons \$2.1026	
Over 55,000 Gallons 3.2590	
From 1 to 15,000 Gallons \$2,1891	\$1.9390
From 15,001 to 75,000 Gallons 2.8536 Over 75,000 Gallons 4.1827	2.7223
Over 75,000 Gallons 4.1827	3.9613
1½" - Industrial	
Gallons Included in Minimum 0	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 55,000 Gallons \$1.5500 Over 55,000 Gallons 2.4800	
Over 55,000 Gallons 2.4800 All Gallons \$2.5000	\$2.4500
	\$2.1300
1½" - Construction	
Gallons Included in Minimum 0	0
Excess of Minimum - per 1,000 Gallons	
From 1 to 15,000 Gallons \$2.1891	\$1.9390
From 15,001 to 75,000 Gallons 2.8536 Over 75,000 Gallons 4.1827	2.7223 3.9613
	0
2" - Residential Gallons Included in Minimum 0 0	0
Excess of Minimum - per 1,000 Gallons	0
From 1 to 95,000 Gallons \$2.1026	
Over 95,000 Gallons 3,2590	
From 1 to 16,000 Gallons \$2.1891 \$1.939	0
From 16,001 to 56,000 Gallons 2.8536 2.722	
Over 56,000 Gallons 4.1827 3.961	

RATE	DESIGN	CONT

	RATE DESIGN	CON-1			
	Present	Company		Staff	
Monthly Usage Charge	Rates	Proposed Rates		Recommended Rai	toe
2" - Commercial & Construction	Autes	1 toposed reales		Recommended Ka	ies
Gallons Included in Minimum		0		0	
Excess of Minimum - per 1,000 Gallons	0	ľ		0	
From 1 to 95,000 Gallons	\$2.1026				
Over 95,000 Gallons	3.2590				
From 1 to 24,000 Gallons	3.2390	\$2.1891	i	£1.0200	
From 24,001 to 120,000 Gallons				\$1.9390	
Over 120,000 Gallons		2.8536		2.7223	
Over 120,000 Gallons		4.1827	1	3.9613	
2" - Industrial					
Gallons Included in Minimum					
	0		0		0
Excess of Minimum - per 1,000 Gallons	04.5500		ı		
From 1 to 95,000 Gallons Over 95,000 Gallons	\$1.5500		l		
1	2.4800	_			
All Gallons		\$	\$2.5000		\$2.4500
all p. 11 . 11					
3" - Residential			1		
Gallons Included in Minimum	0	0	ŀ	0	
Excess of Minimum - per 1,000 Gallons					
From 1 to 195,000 Gallons	\$2.1026		1		
Over 195,000 Gallons	3.2590		- 1		
From 1 to 32,000 Gallons		\$2.1891		\$1.9390	
From 32,001 to 112,000 Gallons		2.8536		2.7223	
Over 112,000 Gallons		4.1827		3.9613	
			i		
3" - Commercial & Construction	i				
Gallons Included in Minimum	0	0		0	
Excess of Minimum - per 1,000 Gallons					
From 1 to 195,000 Gallons	\$2.1026				
Over 195,000 Gallons	3.2590				
From 1 to 48,000 Gallons		\$2.1891		\$1,9390	
From 48,001 to 240,000 Gallons		2.8536		2.7223	
Over 240,000 Gallons		4.1827		3.9613	
			1	0.7015	
3" - Industrial			ŀ		
Gallons Included in Minimum	— ₀		0		0
Excess of Minimum - per 1,000 Gallons	•		ĭ]		0
From 1 to 195,000 Gallons	\$1.5500				
Over 195,000 Gallons	2.4800				
All Gallons	2.1000	6	2.5000		£2.4E00
		φ.	23000		\$2.4500
4" - Residential			1		
Gallons Included in Minimum	-	0	İ	0	
Excess of Minimum - per 1,000 Gallons	°	· ·		U	
From 1 to 315,000 Gallons	\$2.1026		1		
Over 315,000 Gallons	3.2590		1		
From 1 to 50,000 Gallons	3.2390	62 1901		0200	
From 50,001 to 175,000 Gallons		\$2.1891		9390	
1 1		2.8536		7223	
Over 175,000 Gallons		4.1827	3.9	9613	
4" Commondial & Common :	1				
4" - Commercial & Construction Gallons Included in Minimum	[_			
	0	0		0	
Excess of Minimum - per 1,000 Gallons					
From 1 to 315,000 Gallons	\$2.1026				
Over 315,000 Gallons	3.2590				
From 1 to 75,000 Gallons		\$2.1891		\$1.9390	
From 75,001 to 375,000 Gallons		2.8536	1	2.7223	
Over 375,000 Gallons		4.1827	1	3.9613	
			1		
4" - Industrial			1		
Gallons Included in Minimum	0		0		0
Excess of Minimum - per 1,000 Gallons	ļ		l		ļ
From 1 to 315,000 Gallons	\$1.5500		I		
Over 315,000 Gallons	2.4800				
All Gallons		\$2	2.5000		\$2.4500
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RATE	DESIGN	CONT

Monthly Usage Charge	Present Rates	Company Proposed Rates	Staff Recommended Rates	
6" - Residential Gallons Included in Minimum		0	0	
Excess of Minimum - per 1,000 Gallons	Ü	l o	0	
From 1 to 650,000 Gallons	\$2.1026			
Over 650,000 Gallons	3.2590			
From 1 to 100,000 Gallons	3.2370	\$2.1891	\$1.9390	
From 100,001 to 350,000 Gallons		2.8536	2.7223	
Over 350,000 Gallons		4.1827	3.9613	
6" - Commercial	<u> </u>	_		
Gallons Included in Minimum	0	0	0	
Excess of Minimum - per 1,000 Gallons	\$2.1026			
From 1 to 650,000 Gallons Over 650,000 Gallons	3.2590			
From 1 to 150,000 Gallons	3.2390	\$2.1891	\$1,0200	
From 150,001 to 750,000 Gallons		2.8536	\$1.9390 2.7223	
Over 750,000 Gallons		4.1827	3.9613	
6" - Construction				
Gallons Included in Minimum	n/a	0	0	
Excess of Minimum - per 1,000 Gallons	4			
From 1 to 150,000 Gallons	n/a	\$2.1891	\$1.9390	
From 150,001 to 750,000 Gallons	n/a	2.8536	2.7223	
Over 750,000 Gallons	n/a	4.1827	3.9613	
6" - Industrial				
Gallons Included in Minimum			0	
Excess of Minimum - per 1,000 Gallons	· ·		0	0
All Gallons	\$1.5500	\$1.75	\$1.7	150
8" - Residential				
Gallons Included in Minimum		0	0	
Excess of Minimum - per 1,000 Gallons	ŏ	ů.	ď	
From 1 to 1,000,000 Gallons	\$2.1026			
Over 1,000,000 Gallons	3.2590			
From 1 to 160,000 Gallons	5.257	\$2.1891	\$1.9390	
From 160,001 to 560,000 Gallons		2.8536	2.7223	
Over 560,000 Gallons		4.1827	3.9613	
8" - Commercial	_			
Gallons Included in Minimum	0	0	0	
Excess of Minimum - per 1,000 Gallons				
From 1 to 1,000,000 Gallons	\$2.1026			
Over 1,000,000 Gallons	3.2590	20 4004	4, 4	
From 1 to 240,000 Gallons From 240,001 to 1,200,000 Gallons		\$2.1891	\$1.9390	
Over 1,200,000 Gallons		2.8536 4.1827	2.7223 3.9613	
8" - Construction				
Gallons Included in Minimum	n/a	0	0	
Excess of Minimum - per 1,000 Gallons				
From 1 to 240,000 Gallons	n/a	\$2.1891	\$1.9390	
From 240,001 to 1,200,000 Gallons Over 1,200,000 Gallons	n/a n/a	2.8536 4.1827	2.7223 3.9613	
8" - Industrial				
Gallons Included in Minimum			0	0
Excess of Minimum - per 1,000 Gallons	ľ			۷
All Gallons	\$1.5500	\$1.750	0 \$1.71	150
10" - Residential				
Gallons Included in Minimum	0	0	О	
Excess of Minimum - per 1,000 Gallons				
From 1 to 1,475,000 Gallons	\$2.1026			
Over 1,475,000 Gallons	3.2590			
From 1 to 230,000 Gallons		\$2.1891	\$1.9390	
From 230,001 to 805,000 Gallons		2.8536	2.7223	- 1
Over 805,000 Gallons		4.1827	3.9613	
		······································		

RATE DESIGN CON'T									
	Present	Company	Staff						
Monthly Usage Charge	Rates	Proposed Rates	Recommended Rates						
10" - Commercial									
Gallons Included in Minimum		0	0						
Excess of Minimum - per 1,000 Gallons			•						
From 1 to 1,475,000 Gallons	\$2.1026								
Over 1,475,000 Gallons	3.2590								
From 1 to 345,000 Gallons		\$2.1891	\$1,9390						
From 345,001 to 1,725,000 Gallons		2.8536	2.7223						
Over 1,725,000 Gallons		4.1827	3.9613						
10" - Construction									
Gallons Included in Minimum	n/a	0	0						
Excess of Minimum - per 1,000 Gallons		1							
From 1 to 345,000 Gallons	n/a	\$2.1891	\$1.9390						
From 345,001 to 1,725,000 Gallons	n/a	2.8536	2.7223						
Over 1,725,000 Gallons	n/a	4.1827	3.9613						
10" - Industrial									
Gallons Included in Minimum		0	0						
Excess of Minimum - per 1,000 Gallons		· · · · · · · · · · · · · · · · · · ·	١						
Per 1,000 Gallons	\$1.5500	\$1.7500	\$1.7150						
Sales for Resale - All Meters									
Gallons Included in Minimum		0	0						
Excess of Minimum - per 1,000 Gallons		-	v						
All Gallons	\$1.5500	\$2.1891	\$1.9175						
Coin Machine									
Number of gallons	109.00	105.00	105.00						

		Presen	t		Company			Staff	
Service Line and Meter Installation Charges		Rates			Proposed Rates	3	Re	commended Ra	ites
	Service	Meter	Total	Service		Total	Service		Total
Serice Line	Line ¹	Charge	Charge	Line ²	Meter Charge	Charge	Line ²	Meter Charge	Charge
5/8" x 3/4" Meter	\$445	\$155	\$600	\$565	Actual Cost	Varies	\$565	Actual Cost	Varies
3/4" Meter	n/a	n/a	n/a	565	Actual Cost	Varies	565	Actual Cost	Varies
1" Meter	495	315	810	629	Actual Cost	Varies	629	Actual Cost	Varies
1½" Meter	n/a	n/a	n/a	699	Actual Cost	Varies	699	Actual Cost	Varies
2" Turbine Meter	830	1,045	1,875	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies
2" Compound Meter	830	1,890	2,720	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies
3" Turbine Meter		Actual Co	ost		Actual Cost			Actual Cost	
3" Compound Meter		Actual Co	ost		Actual Cost			Actual Cost	
4" Turbine Meter		Actual Co	ost		Actual Cost			Actual Cost	
4" Compound Meter		Actual Co	ost		Actual Cost			Actual Cost	
5" Turbine Meter		Actual Co	ost		Actual Cost			Actual Cost	
5" Compound Meter		Actual Co	ost		Actual Cost			Actual Cost	
8" Turbine Meter		Actual Co	ost		Actual Cost			Actual Cost	
8" Compound Meter		Actual Co	ost		Actual Cost			Actual Cost	
10" Turbine Meter		Actual Co	ost		Actual Cost			Actual Cost	
10" Compound Meter		Actual Co	ost		Actual Cost			Actual Cost	

Service Charges			
Establishment	\$32.00	\$32.00	\$32.00
Guarantee Deposit	(a)	(a)	(a)
Reconnection for Delinquency	32.00	32.00	32.00
Re-establishment	(b)	(b)	(b)
After Hours Service Call out ³	35.00	35.00	35.00
Returned payment for insufficient funds	25.00	25.00	25.00
Meter Re-Read	25.00	25.00	25.00
Meter Test	(c)	(c)	(6)
Late Charge	(d)	(d)	(d)

- ¹ Actual cost of service line if boring under roadway is required.
 ² Actual cost of service line if boring under, or cutting roadway/sidewalk is required.
 ³
- ³ After regular working hours, on Saturdays, Sundays or holidays.
- (a) Residential maximum: Two (2) times average customer class bill.
 - Non-Residential maximum: Two and one-half (2 1/2) times that customers estimated maximum monthly bill.
- (b) Eight (8) times the Customer's monthly minimum charge, or payment of the minimums since disconnection, whichever is less.
- (c) No charge for the first test; for the second test for the same customer within any twelve (12) month period, \$25.00, or actual time and material whichever is greater.
- (d) 1.5 percent after 15 days.

TYPICAL BILL ANALYSIS	
General Service 5/8 x 3/4-Inch Meter	

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	7,781	\$29.62	\$38.22	\$8.61	29.06%
Median Usage	5,700	\$25.24	\$33.15	\$7.91	31.33%
Staff Recommended					
Average Usage	7,781	\$29.62	\$34.69	\$5.07	17.14%
Median Usage	5,700	\$25.24	\$30.04	\$4.80	19.01%

Present & Proposed Rates (Without Taxes) General Service 5/8 x 3/4-Inch Meter

		Company		Staff	
Gallons	Present	Proposed	%	Recommended	%
Consumption	Rates	Rates	Increase	Rates	Increase
-	\$16.00	\$22.00	37.50%	\$20.00	25.00%
1,000	\$17.19	\$23.52	36.87%	\$21.44	24.71%
2,000	\$18.38	\$25.05	36.32%	\$22.87	24.46%
3,000	\$19.56	\$27.24	39.23%	\$24.81	26.81%
4,000	\$21.67	\$29.43	35.82%	\$26.75	23.45%
5,000	\$23.77	\$31.62	33.02%	\$28.69	20.69%
6,000	\$25.87	\$33.81	30.67%	\$30.63	18.38%
7,000	\$27.97	\$35.99	28.67%	\$32.57	16.41%
8,000	\$30.08	\$38.85	29.16%	\$35.29	17.32%
9,000	\$32.18	\$41.70	29.59%	\$38.01	18.12%
10,000	\$34.28	\$44.56	29.97%	\$40.73	18.81%
11,000	\$37.54	\$47.41	26.29%	\$43.45	15.75%
12,000	\$40.80	\$50.26	23.19%	\$46.18	13.18%
13,000	\$44.06	\$53.12	20.56%	\$48.90	10.99%
14,000	\$47.32	\$55.97	18.28%	\$51.62	9.09%
15,000	\$50.58	\$58.82	16.31%	\$54.34	7.45%
16,000	\$53.84	\$61.68	14.57%	\$57.07	6.00%
17,000	\$57.09	\$64.53	13.02%	\$59.79	4.72%
18,000	\$60.35	\$67.38	11.65%	\$62.51	3.57%
19,000	\$63.61	\$71.57	12.50%	\$66.47	4.49%
20,000	\$66.87	\$75.75	13.28%	\$70.43	5.33%
25,000	\$83.17	\$96.66	16.23%	\$90.24	8.50%
30,000	\$99.46	\$117.58	18.21%	\$110.05	10.64%
35,000	\$115.76	\$138.49	19.64%	\$129.85	12.18%
40,000	\$132.05	\$159.40	20.71%	\$149.66	13.33%
45,000	\$148.35	\$180.32	21.55%	\$169.47	14.24%
50,000	\$164.64	\$201.23	22.22%	\$189.27	14.96%
75,000	\$246.12	\$305.80	24.25%	\$288.30	17.14%
100,000	\$327.59	\$410.37	25.27%	\$387.34	18.24%

RATE DESIGN

RATE DESIGN							
Months House Change	Present		Company		Ĭ	Staff	
Monthly Usage Charge	Rates		Proposed Ra	Construction	R	ccommended	Rates Construction
	All		Commercial	& Sale for		Commercial	& Sale for
	Meters		& Industrial	Resalc	Residential	& Industrial	Resale
5/8 x 3/4" Meter	\$23.00	\$30.00	\$35.00	\$25.00	\$28.00	\$31.36	\$24.64
3/4" Meter 1" Meter	n/a 57.50	45.00 75.00	52.50 87.50	37.50	42.00	47.04	36.96
1½" Meter	115.00	150.00	175.00	62.50 125.00	70.00 1 4 0.00	78.40 156.80	61.60 123.20
2" Meter	184.00	240.00	280.00	200.00	224.00	250.88	197.12
3" Meter	368.00	480.00	560.00	400.00	448.00	501.76	394.24
4" Meter 6" Meter	575.00	750.00	875.00	625.00	700.00	784.00	616.00
8" Meter	1,150.00 1,840.00	1,500.00 2,400.00	1,750.00 2,800.00	1,250.00 2,000.00	1,400.00 2,240.00	1,568.00 2,508.80	1,232.00
10" Meter	2,645.00	3,450.00	4,025.00	2,875.00	3,220.00	3,606.40	1,971.20 2,833.60
		'	,	_,	0,440	5,000.10	2,055.00
Private Fire Service (all connection sizes)	25.00			35.00			31.36
Commodity Rates							
							• • • • • • • • • • • • • • • • • • • •
5/8 x 3/4" Meter - Residential							
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons From 1 to 5,000 Gallons	\$1.8000						
From 5,001 to 15,000 Gallons	3.0000						
Over 15,000 Gallons	5.1664						
From 1 to 3,000 Gallons		\$2.2531			\$1.9150		
From 3,001 to 10,000 Gallons		3.3065			2.7700		
From 10,001 to 30,000 Gallons Over 30,000 Gallons		4.3599 6.4668			4.4090		
O'tel 30,000 Gallons		0.4006			6.2400		
5/8 x 3/4" Meter - Commercial							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons From 1 to 10,000 Gallons	** 0000						
Over 10,000 Gallons	\$3.0000 5.1664						
From 1 to 5,000 Gallons	3.1004		\$3.3065			\$2.7700	
From 5,001 to 20,000 Gallons			4.3599			4.4090	
Over 20,000 Gallons			6.4668			6.2400	
5/8 x 3/4" Meter - Construction							
Gallons Included in Minimum	n/a			0			0
Excess of Minimum - per 1,000 Gallons	,						Ÿ
From 1 to 5,000 Gallons	n/a			\$3.3065			\$2.7700
From 5,001 to 20,000 Gallons Over 20,000 Gallons	n/a			4.3599			4.4090
Over 20,000 Ganons	n/a			6.4668			6.2400
5/8 x 3/4" Industrial				1			
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons From 1 to 10,000 Gallons	61 0000						
Over 10,000 Gallons	\$3.0000 5.1664			l			
All Gallons	3.1004		\$4.3599			\$4.4090	
						,	
3/4" - Residential	,						
Gallons Included in Minimum Excess of Minimum - per 1,000 Gallons	n/a	0			0		
From 1 to 5,000 Gallons	n/a	\$2.2531			\$1 .9150		
From 5,001 to 15,000 Gallons	n/a	3.3065			2.7700		
From 15,001 to 30,000 Gallons	n/a	4.3599			4.4090		
Over 30,000 Gallons	n/a	6.4668			6.2400		i
3/4" - Commercial & Construction	ļ						
Gallons Included in Minimum	n/a			0			0
Excess of Minimum - per 1,000 Gallons							Ĭ
From 1 to 8,000 Gallons	n/a			\$3.3065			\$2.7700
From 8,001 to 25,000 Gallons Over 25,000 Gallons	n/a n/a			4.3599 6.4668			4.4090
	11/2			0.4000			6.2400
3/4" - Industrial							
Gallons Included in Minimum	n/a		0			0	
Excess of Minimum - per 1,000 Gallons All Gallons	-/-		\$4.3599			£4.4000	
	n/a		4. 3399			\$4.4090	
1" - Residential							
Gallons Included in Minimum	0	0		1	0		
Excess of Minimum - per 1,000 Gallons	***						
From 1 to 25,000 Gallons Over 25,000 Gallons	\$3.0000 5.1664						
From 1 to 8,000 Gallons	3.1004	\$3.3065			\$2.7700		
From 8,001 to 20,000 Gallons	j	4.3599			4.4090		
Over 20,000 Gallons	1	6.4668			6.2400		
	L						

Monthly Usage Charge	Present Rates	Р	Company roposed Rates	;	Rec	Staff commended Ra	ates
1" - Commercial							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons							
From 1 to 20,000 Gallons	\$3.0000						
Over 20,000 Gallons	5.1664						
From 1 to 13,000 Gallons	5,100		\$3.3065			\$2,7700	
From 13,001 to 35,000 Gallons			4.3599			4.4090	
Over 35,000 Gallons			6.4668			6.2400	
			0000			0.2100	
1" - Construction							
Gallons Included in Minimum	n/a			0			0
Excess of Minimum - per 1,000 Gallons							
From 1 to 13,000 Gallons	n/a			\$3.3065			\$2.7700
From 13,001 to 35,000 Gallons	n/a			4.3599			4.4090
Over 35,000 Gallons	n/a			6.4668			6.2400
All v v v v v v							
1" - Industrial Gallons Included in Minimum	— ₀		0			0	
	١		U			0	
Excess of Minimum - per 1,000 Gallons	62,0000						
From 1 to 20,000 Gallons	\$3.0000						
Over 20,000 Gallons	5.1664		64.2500			£4 4000	
All Gallons			\$ 4.3599			\$4.4090	
1½" - Residential							
Gallons Included in Minimum		0			0		
Excess of Minimum - per 1,000 Gallons	, and the second	-			~		
From 1 to 50,000 Gallons	\$3.0000						
Over 50,000 Gallons	5.1664						
From 1 to 15,000 Gallons		\$3.3065			\$2.7700		
From 15,001 to 35,000 Gallons		4.3599			4.4090		
Over 35,000 Gallons		6.4668			6.2400		
*							
1½" - Commercial							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons							
From 1 to 45,000 Gallons	\$3.0000						
Over 45,000 Gallons	5.1664						
From 1 to 25,000 Gallons			\$3.3065			\$2.7700	
From 25,001 to 50,000 Gallons			4.3599			4.4090	
Over 50,000 Gallons			6.4668			6.2400	
1½" - Construction							
Gallons Included in Minimum	n/a			0			0
Excess of Minimum - per 1,000 Gallons	,						
From 1 to 25,000 Gallons	n/a			\$3.3065			\$2.7700
From 25,001 to 50,000 Gallons	n/a			4.3599			4.4090
Over 50,000 Gallons	n/a			6.4668			6.2400
1½" - Industrial							
Gallons Included in Minimum	o		0			0	
Excess of Minimum - per 1,000 Gallons							
From 1 to 45,000 Gallons	\$3.0000						
Over 45,000 Gallons	5.1664						
All Gallons			\$4.3599			\$4.4090	
2" - Residential							
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons	\$3.0000						
From 1 to 80,000 Gallons	· I						
Over 80,000 Gallons From 1 to 24,000 Gallons	5.1664	£2.2075			60 7700		
· · · · · · · · · · · · · · · · · · ·	[\$3.3065 4.3599		1	\$2.7700		
From 24,001 to 60,000 Gallons Over 60,000 Gallons		4.3599 6.4668			4.4090 6.2400		
		0.1300			0.2700		
2" - Commercial & Construction							
Gallons Included in Minimum	0			0			0
Excess of Minimum - per 1,000 Gallons	· 1						·
From 1 to 75,000 Gallons	\$3.0000			J			
Over 75,000 Gallons	5.1664						
From 1 to 40,000 Gallons	į			\$3.3065			\$2.7700
From 40,001 to 75,000 Gallons	1			4.3599			4.4090
Over 75,000 Gallons				6.4668			6.2400
	1						
Gallons Included in Minimum	- 0		0	- 1		0	
Gallons Included in Minimum Excess of Minimum - per 1,000 Gallons			0			0	
From 1 to 75,000 Gallons	\$3.0000		0			0	
Gallons Included in Minimum Excess of Minimum - per 1,000 Gallons			0 \$4.3599			\$4.4090	

	Present		Company			Staff	
Monthly Usage Charge	Rates		Proposed Ra	tes	Rec	ommended R	ates
3" - Residential							
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons							
From 1 to 160,000 Gallons	\$3.0000	İ					
Over 160,000 Gallons	5.1664						
From 1 to 48,000 Gallons		\$3.3065			\$2.7700		
From 48,001 to 120,000 Gallons		4.3599			4.4090		
Over 120,000 Gallons		6.4668			6.2400		
3" - Commercial & Construction							
Gallons Included in Minimum	0			0			(
Excess of Minimum - per 1,000 Gallons							
From 1 to 155,000 Gallons	\$3.0000						
Over 155,000 Gallons	5.1664						
From 1 to 80,000 Gallons				\$3.3065			\$2,7700
From 80,001 to 150,000 Gallons				4.3599			4.4090
Over 150,000 Gallons				6.4668			6.2400
				0.4000			0.2400
3" - Industrial							
Gallons Included in Minimum			0				
l .	0		0			0	
Excess of Minimum - per 1,000 Gallons	*****						
From 1 to 155,000 Gallons	\$3.0000						
Over 155,000 Gallons	5.1664						
All Gallons	İ		\$4.3599	i		\$4. 4090	
(III To 11 7 1				l			
4" - Residential	!			l			
Gallons Included in Minimum	0	0		ļ	0		
Excess of Minimum - per 1,000 Gallons							
From 1 to 250,000 Gallons	\$3.0000						
Over 250,000 Gallons	5.1664						
From 1 to 75,000 Gallons		\$3.3065			\$2.7700		
From 75,001 to 200,000 Gallons		4.3599			4.4090		
Over 200,000 Gallons	i	6.4668			6.2400		
,		0.1000			0.2400		
4" - Commercial & Construction							
Gallons Included in Minimum	-						
Excess of Minimum - per 1,000 Gallons	· ·			0			0
From 1 to 245,000 Gallons	£2 0000						
	\$3.0000						
Over 245,000 Gallons	5.1664						
From 1 to 125,000 Gallons				\$3.3065			\$2.7700
From 125,001 to 240,000 Gallons				4.3599			4.4090
Over 200,000 Gallons				6.4668			6.2400
4" - Industrial							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons				Į.			
From 1 to 245,000 Gallons	\$3.0000						
Over 245,000 Gallons	5.1664			i			
All Gallons			\$4.3599			\$4,4090	
				I			
6" - Residential	į						
Gallons Included in Minimum	- 0	0			0		
Excess of Minimum - per 1,000 Gallons	<u> </u>	**		- 1	•		
From 1 to 500,000 Gallons	\$3.0000			I			
Over 500,000 Gallons	5.1664			l			
From 1 to 150,000 Gallons	5.1004	\$3.3065		ļ	\$2.7700		
From 150,001 to 425,000 Gallons	i	4.3599					
Over 425,000 Gallons	I	6.4668		j	4.4090		
Con 120,000 Canons	I	0.4000			6.2400		
6" - Commercial	<u> </u>						
Gallons Included in Minimum	— <u>"</u> 1		٥				
	0		0	1		0	
Excess of Minimum - per 1,000 Gallons From 1 to 500,000 Gallons	#2 0000			I			
	\$3.0000						
Over 500,000 Gallons	5.1664						
From 1 to 250,000 Gallons	l		\$3.3065	Į		\$2.7700	
From 250,001 to 1,000,000 Gallons	I		4.3599	i		4.4090	
Over 1,000,000 Gallons	I		6.4668	l		6.2400	
41.0	I			I			
6" - Construction				l			
Gallons Included in Minimum	11/2			0			0
Excess of Minimum - per 1,000 Gallons	į			1			
From 1 to 250,000 Gallons	n/a			\$3.3065			\$2.7700
From 250,001 to 1,000,000 Gallons	n/a			4.3599			4.4090
Over 1,000,000 Gallons	n/a			6.4668			6.2400
	**/*			0.7000			0.2400
o" - Industrial	I			-			
Gallons Included in Minimum	- 0			1		^	
	0		0	- 1		0	
Excess of Minimum - per 1,000 Gallons	** ***		62 5000	I			
All Gallons	\$3.0000		\$3.5000	-		\$3.5394	
	1						
	I						

	RATE DESIGN CON T								
Monthly Usage Charge	Present Rates	Company Proposed Ra	atoc.	Pag	Staff				
8" - Residential	Kates	rioposed Ka	nes	Kec	ommended R	ares			
Gallons Included in Minimum		0		0					
Excess of Minimum - per 1,000 Gallons	~	· ·		· ·					
From 1 to 800,000 Gallons	\$3.0000								
Over 800,000 Gallons	5.1664								
From 1 to 240,000 Gallons	5.1004	\$3.3065		\$2,7700					
From 240,001 to 800,000 Gallons		4.3599		4.4090					
Over 800,000 Gallons		6.4668		6.2400					
8" - Commercial Gallons Included in Minimum		0			0				
Excess of Minimum - per 1,000 Gallons		0							
From 1 to 800,000 Gallons	\$3.0000								
Over 800,000 Gallons	5.1664								
From 1 to 400,000 Gallons	3.1004	\$3.3065			£2 7700				
· · · · · · · · · · · · · · · · · · ·					\$2,7700				
From 400,001 to 1,600,000 Gallons Over 1,600,000 Gallons		4.3599			4.4090				
Over 1,000,000 Gamons		6.4668			6.2400				
8" - Construction	_								
Gallons Included in Minimum	n/a		0			0			
Excess of Minimum - per 1,000 Gallons									
From 1 to 400,000 Gallons	n/a		\$3.3065			\$2.7700			
From 400,001 to 1,600,000 Gallons	n/a		4.3599			4.4090			
Over 1,600,000 Gallons	n/a		6.4668			6.2400			
8" - Industrial									
Gallons Included in Minimum	0	0			0				
Excess of Minimum - per 1,000 Gallons									
All Gallons	\$3.0000	\$3.5000			\$3.5394				
10" - Residential									
Gallons Included in Minimum	_ 0	0		0					
Excess of Minimum - per 1,000 Gallons	ŭ	V							
From 1 to 1,150,000 Gallons	\$3.0000								
Over 1,150,000 Gallons	5.1664								
From 1 to 345,000 Gallons	5.100+	\$3.3065		\$2.7700					
From 345,001 to 1,150,000 Gallons		4.3599		4.4090					
Over 1,150,000 Gallons		6.4668		6.2400					
10" - Commercial									
Gallons Included in Minimum	- 0	0			0				
Excess of Minimum - per 1,000 Gallons	ĭ	0			V				
From 1 to 1,150,000 Gallons	\$3.0000								
Over 1,150,000 Gallons	5.1664		j						
From 1 to 575,000 Gallons	5.1604	\$3.3065	1		\$ 2.7700				
From 575,001 to 2,300,000 Gallons		4.3599	1		,				
Over 2,300,000 Gallons					4.4090				
Over 2,500,000 Ganons		6.4668			6.2400				
10" - Construction									
Gallons Included in Minimum	n/a		0			0			
Excess of Minimum - per 1,000 Gallons	.								
From 1 to 575,000 Gallons	n/a		\$3.3065			\$0.0000			
From 575,001 to 2,300,000 Gallons	n/a		4.3599			0.0000			
Over 2,300,000 Gallons	n/a		6.4668			0.0000			
10" - Industrial	_		j						
Gallons Included in Minimum	0	0	I		0				
Excess of Minimum - per 1,000 Gallons			I						
All Gallons	\$3.0000	\$3.5000			\$3.5394				
Sales for Resale - All Meters									
Gallons Included in Minimum	- 0		0			0			
Excess of Minimum - per 1,000 Gallons			j						
All Gallons	\$3.0000		\$3.3065			\$2.7700			

		Preser	at .		Company			Staff		
Service Line and Meter Installation Charges		Rates	3		Proposed R	ates	R	ecommended	Rates	
	Service	Meter	Total	Service	Meter		Service	Meter		
Serice Line	Line ¹	Charge	Charge	Line ²	Charge	Total Charge	Line ²	Charge	Total Charge	
5/8" x 3/4" Meter	\$115	\$155	\$600	\$565	Actual Cost	Varies	\$565	Actual Cost		
3/4" Meter	n/a	n/a	n/a	565	Actual Cost	Varies	565	Actual Cost	Varies	
1" Meter	495	315	810	629	Actual Cost	Varies	629	Actual Cost	Varies	
1½" Meter	n/a	n/a	n/a	699	Actual Cost	Varies	699	Actual Cost	Varies	
2" Turbine Meter	830	1,045	1,875	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies	
2" Compound Meter	830	1,890	2,720	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies	
3" Turbine Meter		Actual C	Cost		Actual Cos	t		Actual Co	st	
3" Compound Meter		Actual C	ost		Actual Cos	t		Actual Co	st	
4" Turbine Meter		Actual C	Cost	1	Actual Cost			Actual Cost		
4" Compound Meter		Actual C	Cost		Actual Cost			Actual Cost		
6" Turbine Meter		Actual C	ost	ļ	Actual Cos	t		Actual Cos	st	
6" Compound Meter		Actual C	ost		Actual Cos	t		Actual Cos	st	
8" Turbine Meter		Actual C	ost		Actual Cos	t		Actual Cos	st	
8" Compound Meter		Actual C	ost		Actual Cos	t	Actual Cost			
10" Turbine Meter		Actual C	ost		Actual Cos	t	Actual Cost			
10" Compound Meter		Actual C	ost		Actual Cos	t		Actual Cos		

Service Charges			
Establishment	\$32.00	\$32.00	\$32.00
Guarantee Deposit	(a)	(a)	(a)
Reconnection for Delinquency	32.00	32.00	32.00
Re-establishment	(b)	(b)	(p)
After Hours Service Call out ³	35.00	35.00	35.00
Returned payment for insufficient funds	25.00	25.00	25.00
Meter Re-Read	25.00	25.00	25.00
Meter Test	(c)	(c)	(c)
Late Charge	(d)	(d)	(d)

Actual cost of service line if boring under roadway is required.

Actual cost of service line if boring under, or cutting roadway/sidewalk is required.

Actual cost of service line it boring under, or cutting roadway/sidewalk is required.
 After regular working hours, on Saturdays, Sundays or holidays.
 (a) Residential - maximum: Two (2) times average customer class bill.
 Non-Residential - maximum: Two and one-half (2 1/2) times that customers estimated maximum monthly bill.
 (b) Eight (8) times the Customer's monthly minimum charge, or payment of the minimums since disconnection, whichever is less.
 (c) No charge for the first test; for the second test for the same customer within any twelve (12) month period, \$25.00, or actual time and material whichever is

greater.
(d) 1.5 percent after 15 days.

TYPICAL BILL ANALYSIS	
General Service 5/8 x 3/4-Inch Meter	

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	11,733	\$52.20	\$67.46	\$15.26	29.24%
Median Usage	7,681	\$40.04	\$52.24	\$12.19	30.45%
Staff Recommended					
Average Usage	11,733	\$52.20	\$60.78	\$8.58	16.43%
Median Usage	7,681	\$40.04	\$46.71	\$6.67	16.65%

Present & Proposed Rates (Without Taxes) General Service 5/8 x 3/4-Inch Meter

		Company		Staff	
Gallons	Present	Proposed	%	Recommended	%
Consumption	Rates	Rates	Increase	Rates	Increase
~	\$23.00	\$30.00	30.43%	\$28.00	21.74%
1,000	\$24.80	\$32.25	30.05%	\$29.92	20.63%
2,000	\$26.60	\$34.51	29.72%	\$31.83	19.66%
3,000	\$28.40	\$36.76	29.43%	\$33.75	18.82%
4,000	\$30.20	\$40.07	32.67%	\$36.52	20.91%
5,000	\$32.00	\$43.37	35.54%	\$39.29	22.77%
6,000	\$35.00	\$46.68	33.37%	\$42.06	20.16%
7,000	\$38.00	\$49.99	31.54%	\$44.83	17.96%
8,000	\$41.00	\$53.29	29.98%	\$47.60	16.09%
9,000	\$44.00	\$56.60	28.63%	\$50.37	14.47%
10,000	\$47.00	\$59.90	27.46%	\$53.14	13.05%
11,000	\$50.00	\$64.26	28.53%	\$57.54	15.09%
12,000	\$53.00	\$68.62	29.48%	\$61.95	16.89%
13,000	\$56.00	\$72.98	30.33%	\$66.36	18.50%
14,000	\$59.00	\$77.34	31.09%	\$70.77	19.95%
15,000	\$62.00	\$81.70	31.78%	\$75.18	21.26%
16,000	\$67.17	\$86.06	28.14%	\$79.59	18.50%
17,000	\$72.33	\$90.42	25.01%	\$84.00	16.13%
18,000	\$77.50	\$94.78	22.30%	\$88.41	14.07%
19,000	\$82.67	\$99.14	19.93%	\$92.82	12.28%
20,000	\$87.83	\$103.50	17.84%	\$97.23	10.69%
25,000	\$113.66	\$125.30	10.24%	\$119.27	4.93%
30,000	\$139.50	\$147.10	5.45%	\$141.32	1.30%
35,000	\$165.33	\$179.44	8.53%	\$172.52	4.35%
40,000	\$191.16	\$211.77	10.78%	\$203.72	6.57%
45,000	\$216.99	\$244.10	12.49%	\$234.92	8.26%
50,000	\$242.82	\$276.44	13.84%	\$266.12	9.59%
75,000	\$371.98	\$438.11	17.78%	\$422.12	13.48%
100,000	\$501.14	\$599.78	19.68%	\$578.12	15.36%

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D	A TTO	DESCRIPTION

Monthly Licens Charge	Present Rates		Company Proposed Rates	\$	Rec	Staff commended Rat	tes
Monthly Usage Charge	Rates		Commercial,	<u> </u>	ICC	Commercial,	ics
			Construction			Construction	
	All		& Sales for			& Sales for	
	Meters	Residential	Resale	Industrial	Residential	Resale	Industria
5/8 x 3/4" Meter	\$25.00	\$28.00	\$33.00	\$35.00	\$26.93	\$31.74	\$33.6
3/4" Meter	n/a	42.00	49.50	52.50	40.40	47.61	50.4
1" Meter	62.50	70.00	82.50	87.50	67.33	79.35	84.1
1½" Meter	125.00	140.00	165.00	175.00	134.65	158.69	168.3
2" Meter	200.00	224.00	264.00	280.00	215.44	253.91	269.3
3" Meter	400.00	448.00	528.00	560.00	430.88	507.82	538.0
4" Meter	625.00	700.00	825.00	875.00	673.25	793.47	841.5
6" Meter	1,250.00	1,400.00	1,650.00	1,750.00	1,346.50	1,586.95	1,683.1
8" Meter	2,000.00	2,240.00	2,640.00	2,800.00	2,154.40	2,539.11	2,693.0
10" Meter	2,875.00	3,220.00	3,795.00	4,025.00	3,096.95	3,649.98	3,871.1
		,	-,		-,		33.6
Private Fire Service (all connection sizes)	25.00			35.00			33.0
Commodity Rates							
5/8 x 3/4" Meter - Residential							
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons							
From 1 to 3,000 Gallons	\$3.3617				1		
From 3,001 to 10,000 Gallons	5.9502				1		
Over 10,000 Gallons	9.2228						
From 1 to 2,000 Gallons		\$4.4007			\$4.1650		
From 2,001 to 5,000 Gallons		6.3189			5.6650		
From 5,001 to 10,000 Gallons		8.2370			7.3100		
Over 10,000 Gallons		12.0733			10.5930		
5/8 x 3/4" Meter - Commercial							
Gallons Included in Minimum	0		0			0	
	U		Ü			Ü	
Excess of Minimum - per 1,000 Gallons	\$5.9502						
From 1 to 10,000 Gallons							
Over 10,000 Gallons	9.2228		67.2100			¢= ((=0	
From 1 to 2,000 Gallons			\$6.3189			\$5.6650	
From 2,001 to 18,000 Gallons			8.2370			7.3100	
Over 18,000 Gallons			12.0733			10.5930	
5/8 x 3/4" Meter - Industrial							
Gallons Included in Minimum	0			0			
Excess of Minimum - per 1,000 Gallons							
From 1 to 10,000 Gallons	\$5.9502						
Over 10,000 Gallons	9.2228						
All Gallons				\$8.2370			\$7.310
5/8 x 3/4" Meter - Construction							
Gallons Included in Minimum	0		0			0	
Excess of Minimum - per 1,000 Gallons					1		
From 1 to 2,000 Gallons	n/a		\$6.3189			\$ 5.6650	
From 2,001 to 18,000 Gallons	n/a		8.2370			7.3100	
Over 18,000 Gallons	n/a		12.0733			10.5930	
3/4" - Residential							
Gallons Included in Minimum	0	0			0		
Excess of Minimum - per 1,000 Gallons							
From 1 to 3,000 Gallons	n/a	\$4.4007			\$4.1650		
From 3,001 to 7,000 Gallons	n/a	6.3189			5.6650		
From 7,001 to 11,000 Gallons	n/a	8.2370			7.3100		
Over 11,000 Gallons	n/a	12.0733			10.5930		
3/4" - Commercial & Construction	0		0			0	
Gallons Included in Minimum	U		U			U	
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Excess of Minimum - per 1,000 Gallons	n/a		\$6.3189			\$5.6650 7.2100	
From 1 to 3,000 Gallons	,		8.2370			7.3100	
From 1 to 3,000 Gallons From 3,001 to 20,000 Gallons	n/a				I	10.5930	
From 1 to 3,000 Gallons	n/a n/a		12.0733				
From 1 to 3,000 Gallons From 3,001 to 20,000 Gallons Over 20,000 Gallons	n/a		12,0733				
From 1 to 3,000 Gallons From 3,001 to 20,000 Gallons Over 20,000 Gallons 3/4" - Industrial Gallons Included in Minimum			12.0/33	0			
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From 1 to 3,000 Gallons From 3,001 to 20,000 Gallons Over 20,000 Gallons 3/4" - Industrial Gallons Included in Minimum	n/a		12.0/33	0 \$8.2370			\$ 7.31

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RATE DESIGN CON'T

Monthly Usage Charge	Present Rates		npany sed Rates	Reco	Staff mmended Rat	es
6" - Commercial						
Gallons Included in Minimum	0		0		0	
Excess of Minimum - per 1,000 Gallons						
From 1 to 330,000 Gallons	\$5.9502					
Over 330,000 Gallons	9.2228					
From 1 to 100,000 Gallons			\$6,3189		\$5.6650	
From 100,001 to 300,000 Gallons			8.2370	1	7.3100	
			12.0733		10.5930	
Over 300,000 Gallons			12.0755		10.5950	
6" - Industrial						
Gallons Included in Minimum Excess of Minimum - per 1,000 Gallons	0		•)		(
All Gallons	\$5.9502		\$2.2500			\$1.9968
6" - Construction Gallons Included in Minimum	0		0		0	
Excess of Minimum - per 1,000 Gallons	°		v		Ü	
From 1 to 100,000 Gallons	n/a		\$6.3189	1	\$5.6650	
From 100,001 to 300,000 Gallons	n/a		8.2370		\$7.3100	
Over 300,000 Gallons	n/a		12.0733		10.5930	
Over 500,000 Ganons	11/ A		12.0733		10.5950	
8" - Residential						
Gallons Included in Minimum	0	0		0		
Excess of Minimum - per 1,000 Gallons	#F 0505			1		
From 1 to 525,000 Gallons	\$5.9502					
Over 525,000 Gallons	9.2228					
From 1 to 160,000 Gallons		\$6.3189		\$5.6650		
From 160,001 to 400,000 Gallons		8.2370		7.3100		
Over 400,000 Gallons		12.0733		10.5930		
8" - Commercial						
Gallons Included in Minimum	0		0		0	
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Excess of Minimum - per 1,000 Gallons	65.0502					
From 1 to 525,000 Gallons	\$5.9502			ł		
Over 525,000 Gallons	9.2228		0.000	-	******	
From 1 to 160,000 Gallons			\$6.3189	1	\$5.6650	
From 160,001 to 500,000 Gallons			8.2370		7.3100	
Over 500,000 Gallons			12.0733		10.5930	
8" - Industrial						
Gallons Included in Minimum	0		()		0
Excess of Minimum - per 1,000 Gallons						
All Gallons	\$5.9502		\$2.2500			\$ 1.9968
8" - Construction						
Gallons Included in Minimum	0		0		0	
Excess of Minimum - per 1,000 Gallons						
From 1 to 160,000 Gallons	n/a	:	\$6.3189		\$5.6650	
From 160,001 to 500,000 Gallons	n/a		8.2370		7.3100	
Over 500,000 Gallons	n/a		12.0733		10.5930	
10" - Residential						
Gallons Included in Minimum	0	0		0		
Excess of Minimum - per 1,000 Gallons				1		
From 1 to 775,000 Gallons	\$5.9502					
Over 775,000 Gallons	9.2228					
From 1 to 230,000 Gallons		\$6.3189		\$5.6650		
From 230,001 to 575,000 Gallons	1	8.2370		7.3100		
Over 575,000 Gallons		12.0733		10.5930		
400.0						
10" - Commercial Gallons Included in Minimum			0		^	
	0		0		0	
Excess of Minimum - per 1,000 Gallons	Ar 070-					
From 1 to 775,000 Gallons	\$5.9502					
Over 775,000 Gallons	9.2228					
From 1 to 230,000 Gallons		:	\$6.3189		\$5.6650	
From 230,001 to 750,000 Gallons			8.2370		7.3100	
Over 750,000 Gallons		;	12.0733		10.5930	
10" - Industrial						
Gallons Included in Minimum	0		(,		0
Excess of Minimum - per 1,000 Gallons	Ϋ́Ι		`	1		
All Gallons	\$5.9502		\$2.2500			\$1.9968
- II Canono	2000,000		Ψ2.2300			Q1.7700

RATE DESIGN CON'T

	Present	Company	Staff
Monthly Usage Charge	Rates	Proposed Rates	Recommended Rates
10" - Construction			
Gallons Included in Minimum	0	0	0
Excess of Minimum - per 1,000 Gallons			
From 1 to 230,000 Gallons	n/a	\$6.3189	\$5.6650
From 230,001 to 750,000 Gallons	n/a	8.2370	7.3100
Over 750,000 Gallons	n/a	12.0733	10.5930
Sales for Resale - All Meters			
Gallons Included in Minimum	0	0	0.
Excess of Minimum - per 1,000 Gallons			
All Gallons	\$5.9502	\$6.3189	\$5.6650

		Preser			Company			Staff	
Service Line and Meter Installation Charges		Rates			Proposed Rate	s	Re	commended Ra	tes
	Service	Meter	Total	Service		Total	Service		Total
Serice Line	Line ¹	Charge	Charge	Line ²	Meter Charge	Charge	Line ²	Meter Charge	Charge
5/8" x 3/4" Meter	\$445	\$155	\$600	\$565	Actual Cost	Varies	\$565	Actual Cost	Varies
3/4" Meter	n/a	n/a	n/a	565	Actual Cost	Varies	565	Actual Cost	Varies
1" Meter	495	315	810	629	Actual Cost	Varies	629	Actual Cost	Varies
1½" Meter	n/a	n/a	n/a	699	Actual Cost	Varies	699	Actual Cost	Varies
2" Turbine Meter	830	1,045	1,875	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies
2" Compound Meter	830	1,890	2,720	1,054	Actual Cost	Varies	1,054	Actual Cost	Varies
3" Turbine Meter		Actual C	ost		Actual Cost			Actual Cost	
3" Compound Meter		Actual C	ost		Actual Cost			Actual Cost	
4" Turbine Meter		Actual C	ost		Actual Cost			Actual Cost	
4" Compound Meter		Actual C	ost		Actual Cost			Actual Cost	
6" Turbine Meter		Actual C	ost		Actual Cost			Actual Cost	
6" Compound Meter		Actual C	ost		Actual Cost			Actual Cost	
8" Turbine Meter		Actual C	ost		Actual Cost			Actual Cost	
8" Compound Meter		Actual C	ost		Actual Cost			Actual Cost	
10" Turbine Meter		Actual C	ost		Actual Cost			Actual Cost	
10" Compound Meter		Actual C	ost		Actual Cost			Actual Cost	

Service Charges			
Establishment	\$32.00	\$32.00	\$32.00
Guarantee Deposit	(a)	(a)	(a)
Reconnection for Delinquency	32.00	32.00	32.00
Re-establishment	(b)	(b)	(b)
After Hours Service Call out ³	35.00	35.00	35.00
Returned payment for insufficient funds	25.00	25.00	25.00
Meter Re-Read	25.00	25.00	25.00
Meter Test	(c)	(c)	(c)
Late Charge	(4)	(4)	ial i

- $^{1}\,$ Actual cost of service line if boring under roadway is required.
- ² Actual cost of service line if boring under, or cutting roadway/sidewalk is required.

- Actual cost of service me it boring timest, or cutting roadway is required.

 After regular working hours, on Saturdays, Sundays or holidays.

 (a) Residential maximum: Two (2) times average customer class bill.

 Non-Residential maximum: Two and one-half (2 1/2) times that customers estimated maximum monthly bill.

 (b) Eight (8) times the Customer's monthly minimum charge, or payment of the minimums since disconnection, whichever is less.

 (c) No charge for the first test; for the second test for the same customer within any twelve (12) month period, \$25.00, or actual time and material whichever is greater.
 (d) 1.5 percent after 15 days.

TYPICAL BILL ANALYSIS	
 General Service 5/8 x 3/4-Inch Meter	······

Company Proposed	Gallons	Present Rates	Proposed Rates	Dollar Increase	Percent Increase
Average Usage	3,991	\$40.98	\$49.38	\$8.40	20.50%
Median Usage	2,680	\$34.01	\$41.10	\$7.09	20.84%
Staff Recommended					
Average Usage	3,991	\$40.98	\$46.54	\$5.56	13.56%
Median Usage	2,680	\$34.01	\$39.11	\$5.10	15.00%

Present & Proposed Rates (Without Taxes) General Service 5/8 x 3/4-Inch Meter

		Company		Staff	
Gallons	Present	Proposed	%	Recommended	%
Consumption	Rates	Rates	Increase	Rates	Increase
-	\$25.00	\$28.00	12.00%	\$26.93	7.72%
1,000	\$28.36	\$32.40	14.24%	\$31.10	9.64%
2,000	\$31.72	\$36.80	16.01%	\$35.26	11.15%
3,000	\$35.09	\$43.12	22.90%	\$40.93	16.64%
4,000	\$41.04	\$49.44	20.48%	\$46.59	13.54%
5,000	\$46.99	\$55.76	18.67%	\$52.26	11.22%
6,000	\$52.94	\$64.00	20.89%	\$59.57	12.52%
7,000	\$58.89	\$72.23	22.66%	\$66.88	13.57%
8,000	\$64.84	\$80.47	24.11%	\$74.19	14.42%
9,000	\$70.79	\$88.71	25.32%	\$81.50	15.13%
10,000	\$76.74	\$96.94	26.33%	\$88.81	15.73%
11,000	\$85.96	\$109.02	26.82%	\$99.40	15.63%
12,000	\$95.18	\$121.09	27.22%	\$109.99	15.56%
13,000	\$104.40	\$133.16	27.54%	\$120.58	15.50%
14,000	\$113.63	\$145.24	27.82%	\$131.18	15.44%
15,000	\$122.85	\$157.31	28.05%	\$141.77	15.40%
16,000	\$132.07	\$169.38	28.25%	\$152.36	15.36%
17,000	\$141.30	\$181.46	28.42%	\$162.96	15.33%
18,000	\$150.52	\$193.53	28.57%	\$173.55	15.30%
19,000	\$159.74	\$205.60	28.71%	\$184.14	15.27%
20,000	\$168.96	\$217.68	28.83%	\$194.74	15.25%
25,000	\$215.08	\$278.04	29.27%	\$247.70	15.17%
30,000	\$261.19	\$338.41	29.56%	\$300.67	15.11%
35,000	\$307.31	\$398.78	29.76%	\$353.63	15.07%
40,000	\$353.42	\$459.14	29.91%	\$406.60	15.05%
45,000	\$399.53	\$519.51	30.03%	\$459.56	15.02%
50,000	\$445.65	\$579.88	30.12%	\$512.53	15.01%
75,000	\$676.22	\$881.71	30.39%	\$777.35	14.96%
100,000	\$906.79	\$1,183.54	30.52%	\$1,042.18	14.93%

BEFORE THE ARIZONA CORPORATION COMMISSION

DOUG LITTLE
Chairman
BOB STUMP
Commissioner
BOB BURNS
Commissioner
TOM FORESE
Commissioner
ANDY TOBIN
Commissioner

IN THE MATTER OF THE APPLICATION OF ARIZONA WATER COMPANY, AN ARIZONA CORPORATION, FOR A DETERMINATION OF THE FAIR VALUE OF ITS UTILITY PLANT AND PROPERTY, AND FOR ADJUSTMENTS TO ITS ATTES AND CHARGES FOR UTILITY SERVICE FURNISHED BY ITS WESTERN GROUP AND FOR CERTAIN RELATED APPROVALS

DOCKET NO. W-01445A-15-0277

DIRECT

TESTIMONY

OF

FRANK M. SMAILA

WATER/WASTEWATER ENGINEER

ARIZONA CORPORATION COMMISSION

UTILITIES DIVISION

MARCH 18, 2016

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III. CONCLUSIONS AND RECOMMENDATIONS	5
<u>EXHIBITS</u>	
Cost of Service Summary – Present Rates	Schedule G-1
Cost of Service Summary – Proposed Rates	Schedule G-2

EXECUTIVE SUMMARY ARIZONA WATER COMPANY DOCKET NO. W-01445A-15-0277

Frank Smaila's testimony discusses Utilities Division Staff's ("Staff") review of Arizona Water Company's ("AWC" or "Company") Western Group Cost of Service Study ("COSS") for the rate case filed with the Arizona Corporation Commission ("Commission"), and presents the results of Staff's analysis.

Based on its review of AWC's COSS, Staff's conclusions and recommendations are as follows:

- 1. It is Staff's conclusion that AWC performed the COSS consistent with the methodology generally accepted in the industry, and developed all of the allocation factors appropriately.
- 2. Staff further concludes that, based on the evaluation of the COSS model utilized by AWC, the results of the COSS are satisfactory.
- 3. Staff recommends that AWC's COSS allocations and factors be accepted as reasonable in the pending case. The G-1 and G-2 schedules for Pinal Valley, White Tank and Ajo water systems are listed under the attached Exhibit 1.

Direct Testimony of Frank M. Smaila Docket No. W-01445A-15-0277 Page 1

I. INTRODUCTION

- Q. Please state your name, place of employment and job title.
- A. My name is Frank M. Smaila. My place of employment is the Arizona Corporation Commission ("Commission"), Utilities Division, 1200 West Washington Street, Phoenix, Arizona 85007. My job title is Water/Wastewater Engineer.

Q. How long have you been employed by the Commission?

A. I have been employed by the Commission since January 2015.

Q. Please list your duties and responsibilities.

A. As a Water/Wastewater Engineer, specializing in water and wastewater engineering, I inspect and evaluate water and wastewater systems; obtain data, prepare reports; suggest corrective action, provide technical recommendations on water and wastewater system deficiencies; and provide written and oral testimony on rate and other cases before the Commission.

Q. How many cases have you analyzed for the Utilities Division?

A. I have analyzed 9 cases to date covering various responsibilities for the Utilities Division plus over a dozen mainline extension agreements.

Q. What is your educational background?

A. I have a Bachelor of Science degree in Civil Engineering from the University of Pittsburgh at Johnstown and a Master of Science degree in Mineral Processing from Pennsylvania State University. I attended the National Association of Regulatory Utility Commissioners ("NARUC") Utilities Rate School. I also attended the American Water Works Association ("AWWA") Financial Management Seminar.

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Q. Briefly describe your pertinent work experience.

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Prior to my employment with the Commission, I was an environmental engineering specialist with the Arizona Department of Environmental Quality ("ADEQ") for nine years. My responsibilities with ADEQ included review of projects for the construction of water facilities. Prior to that, I worked in the Federal Projects Section at ADEQ where I reviewed and developed engineering plans and specifications for proposed remediation of hazardous substances at Federal and State Superfund sites, and the Department of Defense sites. Prior to that, I worked as a project manager with the Arizona Department of Administration ("ADOA") providing administration management of Inmate Construction Program ("ICP"). Prior to that, I worked as a project manager at an environmental consulting firm, Brown and Caldwell, where I provided management of soil remediation and water supply rehabilitation projects. Prior to that, I worked as the chief engineer at the Pinto Valley Copper Mine, Magma Copper Company and later Broken Hills Proprietary, where I managed the Company's engineering department.

Q. Did Staff perform an analysis of the application that is the subject of this proceeding?

Yes, Staff reviewed the Company's Cost of Service Study ("COSS"). A.

Q. What is the purpose of this Direct Testimony?

The purpose is to discuss Staff's review of Arizona Water Company ("AWC" or "Company") Α. Western Group COSS for the rate case, and present the results of this review for the Pinal Valley, White Tank and Ajo water systems.

II. COST OF SERVICE STUDY - REVIEW PROCESS

Q. What does the COSS signify?

A. There are three steps in performing the COSS. They are: 1) Functionalization; 2) Classification; and 3) Allocation. First, the COSS enables us to determine the system cost of service by classifying the utility's costs (investments and expenses) by function, such as commodity-related, demand-related, customer-related, and direct fire-related functions. Customer-related functions are further broken down into customers and customer services. Second, the study breaks down these costs by customer classes to reflect as closely as possible the cost causation by respective customer classes. Third, the results of the COSS provide a benchmark for the revenues needed from each customer category by appropriately allocating the revenue requirement for each customer class.

Q. Is there a standard COSS Model?

A. There is no standard methodology for designing a COSS, but it is generally advisable to follow a range of alternatives to identify which allocations are more reasonable than others. For that reason, the COSS should be used as a general guide only and as one of many considerations in designing rates.

Q. Did Staff conduct a separate independent COSS?

A. No, Staff did not conduct a separate independent COSS.

Q. What was the process Staff used in reviewing the Company's COSS?

A. Staff reviewed AWC's overall COSS methodology, which is the Commodity-Demand methodology as outlined in the American Water Works Association Manual M1, "Principles of Water Rates, Fees, and Charges". The Commodity-Demand Method breaks down the costs of providing water service into four primary cost components: commodity costs (costs

that tend to vary with the amount of water used by the customers), demand costs (costs associated with peak use/demand), customers costs (costs not associated with water use, such as billing), and direct fire protection costs. Staff then reviewed the Cost of Service G Schedules reflecting various allocation factors (for Commodity, Demand, Customer, and Direct Private Fire) in COSS. Next, staff reviewed the Company's Test Year data ending December 31, 2014, and incorporated Staff's rate base, revenues, and expense adjustments in its filing of March 18, 2016. Staff adjustments to rate base, revenues, and expenses were incorporated in the appropriate G Schedules in this filing. The modified G Schedules G-1 and G-2 are attached under Exhibit 1 for each District. The G-1 Schedules represent present rates using Staff's adjusted test year amounts, and the G-2 Schedules include the impacts of Staff's recommended revenue increase.

Q. In previous rate cases, did the Company complete a COSS?

A. Yes. For their Northern, Eastern and Western Groups.

Q. Were there any differences between the previous COSS's and current COSS?

A. Yes. Plant Accounts such as Water Rights, Source of Supply Land, General Plant Land, General Plant Structures and Intangible Plant; and Operating Expenses such as Other Source of Supply Expenses and Customer Accounting Expenses were allocated differently than previous COSS's. The Company provided explanations to all changes and the explanations seem reasonable.

Q. Did the Company change any other factors from previous COSS's?

A. Yes. In the Company's previous cases for the Northern, Eastern and Western Groups the Company used meter capacity ratios to calculate Demand Allocation Factors ("DAF"). The Company believes that using meter capacity ratios can be misleading if customers do not use

Direct Testimony of Frank M. Smaila Docket No. W-01445A-15-0277 Page 5

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the full capacity of their meter/service connection size¹. In this case, the Company used Coincident Peak ("CP") to calculate DAF which the Company believes better represent the actual peak demands. The Company calculated CP based on the percentage of total water sales to each customer class. Staff believes that utilizing CP to calculate DAF is reasonable.

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III. CONCLUSIONS AND RECOMMENDATIONS

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Q. Based upon your testimony, what are Staff's conclusions and recommendations regarding the Cost of Service Study?

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A. Based on the review of AWC's COSS, Staff's conclusions and recommendations are as follows:

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 It is Staff's conclusion that AWC performed the COSS consistent with the methodology generally accepted in the industry, and developed the allocation factors appropriately.

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2. Staff further concludes that, based on the evaluation of the COSS model utilized by AWC, the results of the COSS are satisfactory.

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3. Staff recommends that AWC's COSS allocations and factors

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Staff recommends that AWC's COSS allocations and factors be accepted as reasonable in the pending case. The G-1 and G-2 schedules for Pinal Valley, White

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Tank and Ajo water systems are listed under the attached Exhibit 1.

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Staff's conclusions are limited to the specific facts of this case and do not create any precedent regarding Cost of Service Studies generally. Staff may make different

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recommendations in other cases.

¹ Explanation of COS functionalization, email from Joel Reiker, dated February 23, 2016.

Direct Testimony of Frank M. Smaila Docket No. W-01445A-15-0277 Page 6

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- Q. Does this conclude your Direct Testimony?
- A. Yes, it does.

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ARLZONA WATER COMPANY
Test Year Ended December 31, 2014
Rate of Return by Customer Class - Present Rates

				Pinal Valley			
	[4]	[8]	<u>[</u>	<u>[0</u>	<u>[E]</u>	E	[6]
	Adjusted <u>Total</u>	Residential	Commercial	Industrial	Large Industrial	Other	Direct Private Fire
Operating Revenues Water Revenues (Sch. H-1) Miscellancous Revenues [†] (Sch. H-1) Total Operating Revenues	\$ 18,006,765 461,124 \$ 18,467,889	\$ 11,298,361 289,333 \$ 11,587,694	\$ 5,412,782 \$ 138,613 \$ 5,551,395 \$	161,824 \$ 4,144 165,968 \$	796,145 \$ 20,388 816,533 \$	216,003 5,531 221,534	\$ 121,650 3,115 \$ 124,765
Operating Expenses Operations & Maintenance Expense Depreciation & Amortization Expense	10,669,138	7,048,315	2,808,611		553,404		•
Property Taxes	440,247 969,343	90,019 608,215	306,681 291,382	(1,212) 8,711	32,309 42,858	19,588 11,628	7,138) 6,549
Outer raxes Total Operating Expenses	172,487 \$ 15,909,593	113,950 \$ 10,311,789	\$ 4,449,318 \$	12	1	- 1	8 117.570
Taxable Income	1,169,685	239,170	814,815	(3,219)	85,840		
Net Operating Income	\$ 2,558,296	\$ 1,275,905	\$ 1,102,077 \$	18,023 \$	100,814 \$	54,281 \$	7,196
Interest Expense	1,828,858	1,126,754	593,943	20,031	47,283	21,826	19,023
Rafe Base	\$ 57,867,308	\$ 35,651,862	\$ 18,793,072 \$	633,791 \$	1,496,087 \$	690,594 \$	601,902
Rate of Retum (Ln. 17 + Ln. 23)	4.42%	3.58%	5.86%	2.84%	6.74%	7.86%	1.20%
Required Rate of Return (Sch. A-1, Ln. 12)	8.02%	8.02%	8.02%	8.02%	8.02%	8.02%	8.02%
Required Operating Income (Ln. 23 X Ln. 27)	\$ 4,640,958	\$ 2,859,279	\$ 1,507,204 \$	\$ 0830 \$	119,986 \$	\$ 986,38	48,273
Operating Income Deficiency (Ln. 29 - Ln. 17)	\$ 2,082,662	\$ 1,583,375	\$ 405,127 \$	32,807 \$	19,172 \$	1,104 \$	41,077
Additional Taxes & Uncollectibles at Proposed Rates (Sch. G-4)	\$ 1,327,471	\$ 834,711	\$ 398,547 \$	18,671 \$	\$ 965'05	15,890 \$	9,056
Required Increase in Gross Revenues (Ln. 31 + Ln. 34)	\$ 3,410,132	\$ 2,418,086	\$ 803,674 \$	51,478 \$	\$ 89,768	16,994 \$	50,133
% Required Increase in Gross Revenues (Ln. 36 + Ln. 5)	18.47%	20.87%	14.48%	31.02%	8.54%	7.67%	40.18%
Gross Revenue Requirement (Ln. 5 + Ln. 36)	\$ 21,878,021	\$ 14,005,779 \$	\$ 6,355,069 \$	217,446 \$	886,300 \$	238,529 \$	Ψ-
Less: Miscellaneous Revenues at Proposed Rates	\$ (461,124)	\$ (289,371) \$	(138,631) \$	(4,495) \$	\$ (879,97)	(5,532) \$	(3,116)
Revenue Requirement - Metered Water Revenues	\$ 21,416,897	\$ 13,716,408 \$	6,216,438 \$	212,950 \$	866,322 \$	232,997 \$	171,782
% of Revenues Required from Fixed Charge % of Revenues Required from Commodity Charge	58% 42%	62% 38%	55% 45%	50% 50%	26% 74%	52% 48%	100% 0%

¹Allocated to customer classes based on percentage of total water revenues

Supporting Schedules: G-3, G-4, H-1

E:VACC G1 & G2 Model G1 Processing Date: 3/9/2016 8:54 AM

	141				Pinal	Pinal Valley					
	₹	<u>n</u>	ច	<u> </u>	回	[4]		[9]	Ξ	Ξ	
	Total Cost			Customer	mer			Month	Monthly Cost of Service		
	of Service	Commodity	Demand	& Billing	Neters & Services	Direct <u>Private Fire</u>	Me Per 5	Metering - Per 5/8" Equiv.	Billing - Per Bill	Commodity - Per M Gal	Gal -
Total System Cost of Service	\$ 21,878,021	\$ 6,242,653	\$ 11,033,907	6,242,653 \$ 11,033,907 \$ 3,719,135 \$	\$ 707,428 \$	174.898					
Residential	\$ 14,005,779	\$ 3,632,620 \$	\$ 6,597,070	6,597,070 \$ 3,246,709 \$		(a)	ť	2. 2.2			
Commercial	\$ 6,355,069	\$ 1,864,383	1,864,383 \$ 3,903,984	\$ 426 595		•	•	6.55	10.29		1.8837
Indirettial						מש	(4)	30.45	17.56	2.0	2.0737
וויינים ומו	\$ 217,446	\$ 75,727 \$	\$ 131,410	\$ 7,205	\$ 3,104	n/a	69	51.71 \$	32.02	8	1.8272
Large industrial	\$ 886,300	\$ 590,612	\$ 265,179 \$	25,315	\$ 5,194	n/a	ь	62.03	436.46	•	3606
Other	\$ 238,529	\$ 79,311	\$ 136,264 \$	\$ 13,311 \$	9,643	n/a			P 00		CROS
Direct Private Fire	\$ 174,898	n/a	n/a	n/a	n/a \$	174,898	>	6.0	33.36	2	2.0016
Total System Cost of Service	\$ 21,878,021	\$ 6,242,653	\$ 11,033,907	6,242,653 \$ 11,033,907 \$ 3,719,135 \$ 707,428 \$	707,428 \$	174,898					

 $\begin{array}{c} \text{Lin} \\ \text{No.$

Supporting Schedules: G-3, G-4, H-1

ARIZONA WATER COMPANY
Test Year Ended December 31, 2014
Rate of Return by Customer Class - Present Rates

Exhibit Schedule G-1 Page 1 of 2 Witness: Reiker

1,800 35 1,835

Direct Private Fire

1,043 1,897 (7) 87 3,035

(33) (1,200) (1,174) 8.02% (2,980)(1,779)

o⁄a

(37,152)

(1,679) -91.49%

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(35)

100% 0%

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	7	Ξ.	Σ	<u> </u>	II.	Ξ
Line No. 1	Adjusted <u>Total</u>	Residential	Commercial	industrial	Large <u>Industrial</u>	Other
Operating Revenues Water Revenues (Sch. H-1) Miscellaneous Revenues [†] (Sch. H-1) Total Operating Revenues	\$ 2,276,922	22 \$ 1,802,196 21 35,317	421,627	4	15,992 313	
		A	\$ 429,890	· •	\$ 16,305 \$	
Operating Expenses Operations & Maintenance Expense Depreciation & Amortization Expense	1,216,079	79 997,096 45 580 485	208,011		2,271	7,658
Income Taxes	12,040	ิถั	156,606	•	1,827	4,349
Property Taxes	110,153	53 87,187	(25/) 20,398	. ,	2,461 774	4,712
Outer Laxes Total Operating Expenses	\$ 2,110,821	\$ 1,6	2,889		32	
Taxable Income	64,702	32,431	(1,201)		***	22,010
Net Operating income	\$ 210,721	21 \$ 143,272	\$ 42,243		\$ 8,941 \$	17,464
Interest Expense	159,870	70 117,784	43,187	•	(94)	166
Rate Base	S 5 058 488	18 3 726 843	1 388 505	•		
Rate of Return (Ln. 17 + Ln. 23)			800°C	, c	* (2,9/4) \$	5,266
Required Rate of Retum (Sch. A-1, Ln. 12)	8.02%		8:02%	8.0	8.02%	%±0.55
Required Operating Income (Ln. 23 X Ln. 27)	\$ 405,691	1 \$ 298,893	\$ 109,594	· 67		422
Operating Income Deficiency (Ln. 29 - Ln. 17)	\$ 194,969	9 \$ 155,620	\$ 67,350 \$, 69	\$ (9,180) \$	(17,042)
Additional Taxes & Uncollectibles at Proposed Rates (Sch. G-4)	\$ 141,033	3 \$ 108,662	\$ 23,914 \$,	\$ 2,775 \$	5,581
Required Increase in Gross Revenues (Ln. 31 + Ln. 34)	\$ 336,002	2 \$ 264,282	\$ 91,265 \$, 69	\$ (6,405) \$	(11,461) \$
% Required Increase in Gross Revenues (Ln. 36 + Ln. 5)	14.47%	74.38%	21.23%	n/a	-39.28%	-31.84%
Gross Revenue Requirement (Ln. 5 + Ln. 36)	\$ 2,657,544	4 \$ 2,101,795	\$ 521,155 \$,	\$ 9,901 \$	24,537
Less: Miscellaneous Revenues at Proposed Rates	\$ (44,621)	\$ (35,317)	\$ (8,263) \$		\$ (313) \$	(692)
Revenue Requirement - Metered Water Revenues	\$ 2,612,923	\$ 2,066,478	\$ 512,892 \$,	\$ 9,587 \$	23,845
% of Revenues Required from Fixed Charge % of Revenues Required from Commodity Charge	57% 43%	58% 42%	55% 45%	n/a n/a	51% 49%	47% 53%
'Allocated to customer classes based on						

Supporting Schedules: G-3, G-4, H-1

E:\ACC G1 & G2 Model G1 Processing Date: 3/9/2016 8:53 AM

	l							Whi	White Tank			•			
		₹	<u>.</u>		<u>ত</u>		<u>e</u>		E		<u>[5]</u>	-	Ξ		Ξ
	·	Total Cost					Customer		i			Month	Monthly Cost of Service	rvice	
	-,	of Service	Commodity	×	Demand	₹ ∞1	Accounting & Billing	Meters & Services	Direct Private Fire		Metering - Per 5/8" Equiv.	ing - Equiv.	Billing - Per Bill	S a	Commodity - Per M Gal
Total System Cost of Service	€>	2,657,544 \$			706,161 \$ 1,721,240 \$	69	337,149 \$ (107,162) \$	(107,162)	\$ 156	9					
Residential	€>	2,101,795 \$		ده	\$ 559,073 \$ 1,309,557 \$	€9	327,875 \$	(94,710)	n/a	œ	· 67	24 99	11 01	v	7070
Commercial	69	521,155 \$	-	135,325 \$	387,526 \$	69	6,381 \$	(8,078)	n/a	œ			6.1		7.0404
Industrial	€9	1	ı	69	ı	₩	69	· '	B/0		. v	9 6 02.55	OC.		3.0495
Large Industrial	€>	9,901 \$	2,855	55 &	7,821	€9	825 \$	(1,600)	u/a		→ 69	7.11	, 88 57	A 4	, 82 22
Other	69	24,537 \$	8,908	& 80	16,335	69	2,069 \$	(2,774)	n/a	a	· 69		31.82		9 800F
Direct Private Fire	69	156	c	n/a	ה/מ		n/a		\$ 156	"					0000
Total System Cost of Service	65	\$ 2,657,544 \$	706,16	\$	\$ 706,161 \$ 1,721,240 \$	€	337,149 \$ (107,162) \$	(107,162) \$	156	lo					

Recap Schedules:

		₹		<u>8</u>		<u>[5]</u>	<u>A</u>				E		[9]
		Adjusted Total	œ.	Residential	Com	Commercial	Industrial	=1	Large Industrial		Other	Paiv	Direct Private Fire
Operating Revenues Water Revenues (Sch. H-1) Miscellaneous Revenues¹ (Sch. H-1)	69	436,184	₩		€9	125,128 \$		69	·	↔	1995	↔	1,200
Total Operating Revenues	es .	440,286	5	312,200	8	126,304 \$		69]	65	570	69	1,211
Operating Expenses Operations & Maintenance Expense		315.970		235 460		78 080					Š		
Depreciation & Amortization Expense		64,390		48,136		15,101			• •		929		593 000
Income Taxes		99		(2,415)		3,385			·		(161)		(149)
Property Taxes		20,192		14,318		5,793			·		26.		26.
Outer raxes Total Operating Expenses	69	6,357	65	300 246		1,589				6	19		12
Taxable Income		3 385						9	•		ecn'i	Ð	1,420
		3		(1/6/31)		₹		1	•		(825)		(<u>1</u>
Net Operating Income	49	32,716	69	11,955	69	21,457 \$		s	1	₩	(488)	69	(208)
Interest Expense		29,992		21,911		7,499	·		•		176		407
Rate Base	₩	948,971	69	693,280	\$	237,262 \$	•	69	'	69	5,560	€9	12,869
Rate of Retum (Ln. 17 + Ln. 23)		3.45%		1.72%		9.04%		n/a		n/a	-8.77%		-1.62%
Required Rate of Return (Sch. A-1, Ln. 12)		8.02% 8.02% 8.02%		8.02%		8.02%	8.0	8.02%	8.02%	%	8.02%		8.02%
Required Operating Income (Ln. 23 X Ln. 27)	69	76,107	69	55,601	G	19,028 \$	•	69	•	v)	446	69	1,032
Operating Income Deficiency (Ln. 29 - Ln. 17)	69	43,392	€9	43,646	67	(2,429) \$	•	₩.	'	69	88 24	G	1,241
Additional Taxes & Uncollectibles at Proposed Rates (Sch. G-4)	69	12,304	€9	8,464	•	3,759 \$	·	€	•	49	6)	↔	8
Required Increase in Gross Revenues (Ln. 31 + Ln. 34)	69	55,696	₩	52,110	₩	1,330 \$	•	69	1	69		€9	1,331
% Required Increase in Gross Revenues (Ln. 36 + Ln. 5)		12.65%		16.69%		1.05%		n/a		n/a	162.26%		109.87%
Gross Revenue Requirement (Ln. 5 + Ln. 36)	69	495,982	69	364,311	₩	127,635 \$	•	€9	•	€9	1,494	€9	2,542
Less: Miscellaneous Revenues at Proposed Rates	es.	(4,101)	€9	(2,904) \$		(1,180) \$,	69	'	€9	(9)	₩	(13)
Revenue Requirement - Metered Water Revenues	S	491,880	69	361,407	69	126,455 \$		·	1	8	1,490	es.	2,529
% of Revenues Required from Fixed Charge % of Revenues Required from Commodity Charge		54% 46%	ro 4	56% 44%	48% 52%	% %	n/a n/a		n/a n/a		65% 35%	5.0	100% 6%

^{&#}x27;Allocated to customer classes based on percentage of total water revenues

Supporting Schedules: G-3, G-4, H-1

	1							Ajo	0					
		₹	[8]		<u>ত</u>	<u>[0</u>	<u>[</u>]		E	[9]	150	Ξ	E	
	•	Total Cost			·	٥	storne				Month	Monthly Cost of Service	vice	
	-,	of Service	Commodity		Demand	Accounting & Billing	Meters & Services		Direct Private Fire	Metering - Per 5/8" Equiv.	ing - Equiv.	Billing - Per Bill	Commodity - Per M Gal	- m
Total System Cost of Service	.	495,982	\$ 170,922 \$	⇔	222,488 \$	\$ 83,575	₩	16,454 \$	2.542					
Residential	€ 7	364,311	\$ 119,241 \$	₩	159,382		· 6		ι γα n/a	69	26 97	10 54	7.4	7051
Commercial	67	127,635	\$ 51,387 \$	69	62,180	\$ 11,130	69	2,937	n/a	· 69		13.06		5,8720
Industrial	49	ı	, 69	₩	ı	, 69	s o	,	u/a	· u				3
Large Industrial	€9	•		₩	ı	, 6	€		n/a	→	· •			, ,
Other	↔	1,494	\$ 295	6 7	926	\$ 91	\$	183	n/a	· 69	6. 4.	7.56		6 1380
Direct Private Fire	()	2,542	n/a	æ	n/a	n/a	ent	n/a \$	2,542					}
Total System Cost of Service	↔	495,982	170,92	69	170,922 \$ 222,488 \$	- 1	83.575 \$ 16.454 \$ 2.543	8 454	2 543					

51,953 65,366 1,353 6,951 840 126,464

32,688 34,681 12,343 1,644 183,061

553,404 78,200 80,895 44,573 8,947 766,019

3,593 21,263 19,023

92,098

214,827

181,215 \$

3,116 147,727

256,772 \$

5,532

927,256 \$ 19,978 947,234 \$

208,652 \$

Direct Private Fire <u>ত</u>

Other

Large <u>Industrial</u> 回

			E.	<u> </u>			D.	Pine	Pinal Valley [D]
Line No.		A	Adjusted <u>Totai</u>	Residential	ntial	Commercial	nercial	Indu	<u>Industrial</u>
. ପର 4 ପ ର	Operating Revenues (Sch. H-1) Water Revenues (Sch. H-1) Miscellaneous Revenues (Sch. H-1) Total Operating Revenues	8 8	21,402,561 \$ 461,124 21,863,685 \$	\$ 13,4	13,430,858 289,371 13,720,229	\$ \$	6,434,412 138,631 6,573,043	es es	208,652 4,495 213,148
0 6 8 0 0 1 2 2 2 3	Operating Expenses Operations & Maintenance Expense Depreciation & Amortization Expense Income Taxes Property Taxes Other Taxes Total Operating Expenses	-	10,669,138 3,658,377 1,696,790 1,028,806 172,487 17,225,598	0,7,2,4,4,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1,1	7,048,315 2,451,289 879,009 645,612 113,950 11,138,176	\$ 4	2,808,611 997,237 684,794 309,298 45,407 4,845,346 \$	*	105,150 33,595 16,057 10,030 1,700 166,532
<u> </u>	Taxable Income	•	4,506,019	2,3	2,334,310	←	1,818,548		42,642
17 8	Net Operating Income	es	4,638,087 \$		2,582,054	3,	1,727,697	s	46,615
2 2 2	Interest Expense		1,828,858	+-	1,126,754		593,943		20,031
ននេះ	Rate Base	es es	57,867,308 \$		35,651,862 :	\$ 18,	18,793,072	€>	633,791
25 25	Rate of Return ² (Ln. 17 + Ln. 22)		8.02%		7.24%		9.19%		7.36%
26	Increase in Gross Revenues	69	3,395,796 \$		2,132,536	€	1,021,649	₩	47,180
3 8 5	% Increase in Gross Revenues		18.4%		18.4%		18.4%		28.4%
3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	% of Revenues Generated from Fixed Charge % of Revenues Generated from Commodity Charge		2% 98%		2% 98%		2% 98%		2% 98%
38 37 88 39 34 36									
2444									
3 4 4 4 6 3 2									
22 22 23	⁷ Allocated to customer classes based on percentage of total water revenues. ² Rate of return at proposed rates includes the effect of any proposed rate consolidation.								

3.53%

11.47%

12.11%

601,902

690,594 \$

1,496,087 \$

633,791 \$

21,826

47,283

18.4%

18.4% 40,770

16.0%

22,961

130,701 \$

2% 98%

2% 98%

2% 98%

Supporting Schedules: H-1, G-3, G-4

٠.

Exhibit Schedule G-2 Page 1 of 1 Witness: Reiker

٠	Operating Revenues Water Revenues (Sch. H-1)	Miscellaneous Revenues ¹ (Sch. H-1) Total Operating Revenues	Operating Expenses	Operations & Maintenance Expense Depreciation & Amortization Expense	Income Taxes	Property Taxes Other Taxes	Total Operating Expenses	Taxable Income	Net Operation Income		Interest Expense		Rate Base	Rate of Retum ² (Ln. 17 + Ln. 22)		Increase in Gross Revenues	% Increase in Gross Revenues		% of Revenues Generated from Fixed Charge % of Revenues Generated from Commodity Charge					,										¹ Allocated to customer classes based on	percentage of total water revenues.	rate of eturn at proposed rates includes the effect of any proposed rate consolidation.	
No.	- 2 8	4 rb (م و م	∞ ത	2;	= 2	6 2	τ το :	16	: 82	0 6	7.5	3 53	2 2	52 52	26	82 68	္က	33 33	8	¥ %	ဂ္ဂ ဗ္ဂ	37	<u>ب</u>	3 4	4	4 6	\$ \$	5	9 ;	5 4	₽	5.50	25	8 2 2	55 4	

	[6]	Direct Private Fire	2,065	2,100	1,043	1,897	8 6 16	14	3,132	228	(1,032)	(1,174)	(37,152)	2.78%	265	14.4%	2% 98%
	Ì	-	49	69					69		G		69		49		
	E	Other	40,496	41,188	7,658	4,349	1,790	106	24,109	27,118	17,079	166	5,266	324.33%	5,190	14.4%	2% 98%
			69	S	24				69		69		€9		69		
	<u>[i]</u>	Large Industrial	18,343	18,656	2,271	1,827	811	32	10,137	13,810	8,519	(94)	(2,974) \$	-286.42%	2,351	14.4%	2% 98%
		-=1	€	6					S		65		€9		69		
Tank]	irial					,	,	,	,		,	,	0.00%	,	0.0%	%° °°
White Tank	<u>e</u>	Industrial															
			69	69	, A.				43		₩		↔		(A)		
	<u>5</u>	Commercial	483,612	491,875	208,011	22,505	21,378	2,889	411,389	59,803	80,485	43,187	1,366,505	5.89%	61,985	14.4%	2% 98%
		O	69	69	1 T				₩.		8		69		69		
	<u>@</u>	Residential	2,067,143	2,102,460	997,096	110,332	91,377	13,850	1,801,821	293,188	300,640	117,784	3,726,843	8.07%	264,947	14.4%	2% 98%
l		ΔĬ	69	s,					co-		69		64		69		
				08	79	25	4 5	- 1		46	11	2		8.02%		14.4%	28 98%
	₹.	Adjusted <u>Total</u>	2,611,659 44,621	2,656,280	1,216,079	148,325	115,447	16,892	2,250,588	394,146	405,691	159,870	5,058,488	8.0	334,737	4.	ை
			↔	69		j.		-	69		69		€9		69		

Supporting Schedules: H-1, G-3, G-4

¹Allocated to customer classes based on percentage of total water revenues.

²Rate of return at proposed rates includes the effect of any proposed rate consolidation.

	[A]
Operating Revenues Water Revenues (Sch. H-1) Miscellaneous Revenues (Sch. H-1) Total Operating Revenues	<i>မ</i> ာ
Operating Expenses Operations & Maintenance Expense Depreciation & Amortization Expense Income Taxes Property Taxes Other Taxes Total Operating Expenses	, w
Taxable Income	
Net Operating Income	မာ
interest Expense	
Rate Base	€
Rate of Retum² (Ln. 17 + Ln. 22)	
Increase in Gross Revenues	69
% Increase in Gross Revenues	
% of Revenues Generated from Fixed Charge % of Revenues Generated from Commodity Charge	
Allocated to customer classes based on Percentage of total water revenues. Reate of return at proposed rates includes the effect of any proposed rate consolidation.	

	<u>[0]</u>	Direct Private Fire	1,616	1,629	669 909 472)	8	1,509	(360)	121	407	12,869	0.94%	418	34.5%	104%
		ΔI	564 \$	\$ 699	929 244 (169)	7 5	,048 \$	(824)	(479) \$	176	5,560 \$	-8.61%	(E)	-0.2%	1% 99%
	Œ	Other				•	۲	Ŭ)		Ġ	φ		9	u ,
		<u> </u>	69	€ 9			€			ı	69 ₁	0.00%	69	%0.0	%%
	巨	Large Industrial	_												
		.	€ Э	\$	 			1	65		49 1	0.00%	69	0.0%	%0
Ajo	[<u>0</u>]	Industrial										Ū			
			€9	₩	255 284		€9		8		69		69		
	<u>ত</u>	Commercial	141,399	142,579	78,980 15,101 6,841	6,051	108,561	33,360	34,018	7,499	237,262	14.34%	16,274	12.9%	37% 63%
			€9	69	14		es.		8		69		69		
	<u>@</u>	Residential	348,090	350,994	235,469 48,136 5,300	14,896 4,737	308,538	25,845	42,456	21,911	693,280	6.12%	38,793	12.4%	57% 43%
		ద	69	€5											
ĺ					000	٥,	\$	N	8	~	₩ -	-20	69	×.	66
	<u>₹</u>	Adjusted <u>Total</u>	491,669	495,770	315,970 64,390 11,898	21,040 6,357	419,655	58,022	76,115	29,992	948,971	8,02%	55,485	12.6%	51% 49%
		⋖	↔	6			↔		69		↔		69		

Supporting Schedules: H-1, G-3, G-4